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ABSTRACT

The question addressed in this research report was, "What relationship exists between the mood of the teacher and the teacher's classroom instructional behavior, especially that which is supportive in nature." Three urban, three suburban, and three rural second grade teachers were the subjects of the study. A description is given of the teachers, their classrooms, and the school environments. The methodology of the research project is explained and descriptions are provided of supportive and nonsupportive instructional behaviors in each teacher's class. Comparison of data for all teachers and lessons observed is presented in tabular form. Discussion and implications of the study for the teacher, administrator, teacher educator, and researcher are included. Appendices include samples of the questionnaire used in the study. (JD)

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Interactive Research and Development on Teaching

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AN EXPLORATORY STUDY OF THE POSSIBLE RELATIONSHIPS BETWEEN TEACHER'S MOOD AND TEACHER'S SUPPORTIVE INSTRUCTIONAL BEHAVIOR

VOLUME 1: RESEARCH REPORT

Vermont IR&DT Team

Mary Calder
Kenneth Fishell
Irene Mayer
Nancy Pecor
Charles Rathbone
Phyllis Paolucci Whitcomb

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INTRODUCTION

In mid-August of 1977 a research team was convened to begin a process of educational research and development. This team was the result of a set of ideas advanced by Ward and Tikunoff (1975), who raised issue with the usual "linear" research and development model. Their criticisms included the following points:

1. Government planners of educational research and development were influenced by principles of cost-effectiveness, a technological model. Educational systems differ from technological systems.

2. Linear research and development placed the consumers (teacher and children) at the end of a developmental chain of events. Schools and teachers tend to pursue their own goals which may not correspond to those goals determined by the recipients of governmental research and development funds.

3. The time lag from initial research to ultimate delivery of the developed product is too long. The educational need stimulating initial funding may be perceived as irrelevant seven to eight years later.

4. The lack of practicing teachers on research and development teams often finds researchers and developers talking to each other but not to teachers. Products developed with the teacher in mind go unused.

The response to their perceptions was a call for a model of "interactive research and development on teaching." At the heart of such a model would be a research team composed of teacher trainers, practicing public school teachers, and educational researchers. Each member would represent their constituencies at every step of the research and development process. Parity among members would be necessary for all decisions related to research and development from the formation of the research question to the determination of conclusions resulting from the research and the implementation of training procedures for groups interested in the process and findings of the research

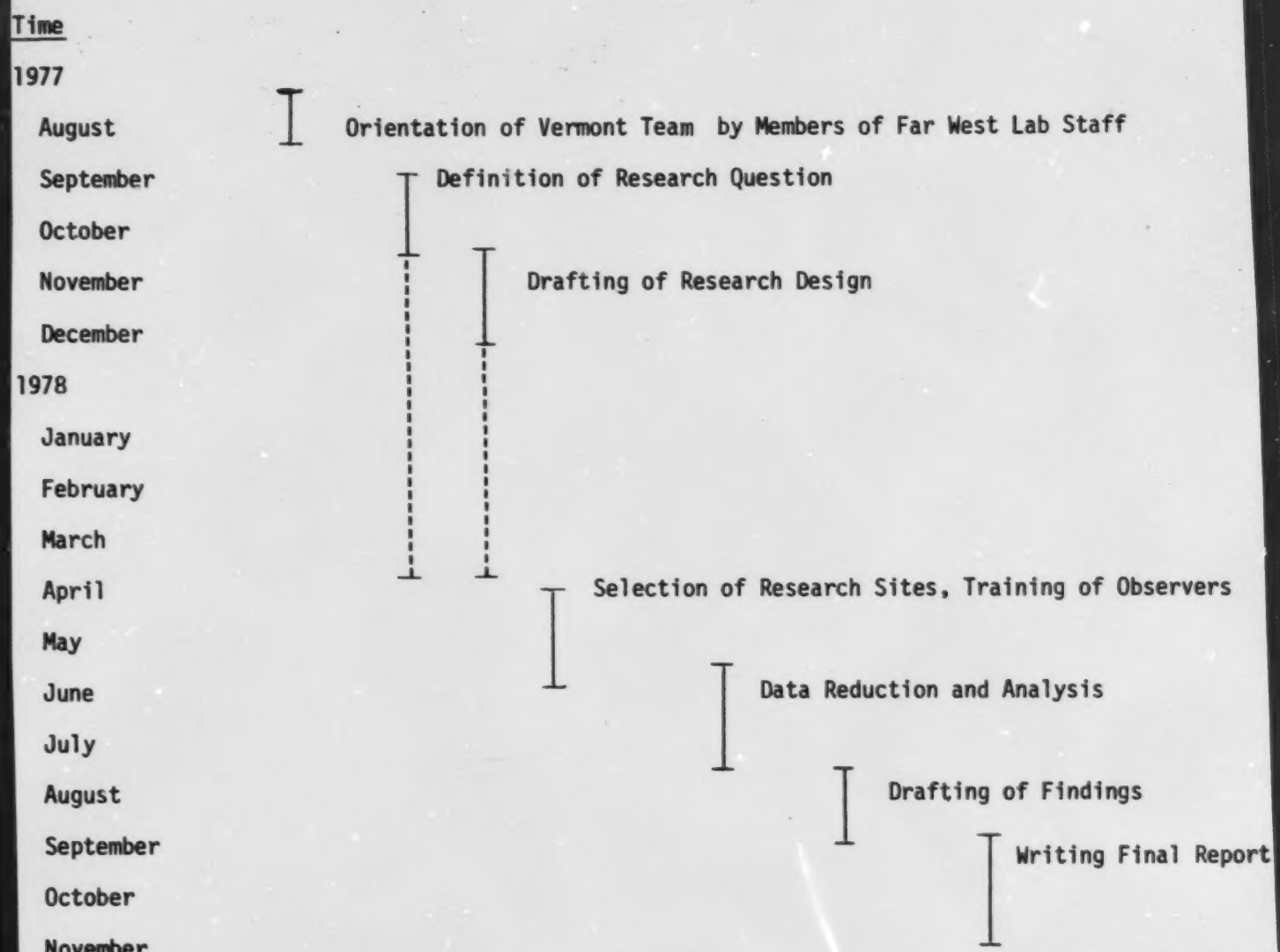
study. Were such a model to be implemented, the guiding assumption would be that the research and development time lag would be shortened and that the processes and findings of the research process would have utility for the classroom teacher as well as the other constituencies represented by the research team.

The Vermont Interactive Project research team was formed to carry out a program of interactive research and development on teaching. The team included one researcher, one trainer, and three primary grade teachers from a rural Vermont school district. During the course of the study, a new trainer was added to the team replacing the original trainer who resigned from the project after the project had been in operation for two months. Figure 1 presents a time line reflecting the work of this team over a fifteen-month period. This report delineates the findings and conclusions in terms of the question it chose to research. (The findings of its training component are contained in a separate report.)

The research program is reported in six chapters.

Chapter One	The Search for and Identification of the Research Question
Chapter Two	A Description of the Teachers and Their Districts
Chapter Three	The Research Methodology
Chapter Four	Case Studies of Nine Teachers
Chapter Five	Comparison of Analyses for the Sample of Nine Teachers
Chapter Six	Discussion and Implications of the Study

Figure 1. Events in the research process



CHAPTER ONE

THE SEARCH FOR AND IDENTIFICATION OF THE RESEARCH QUESTION

The usual pattern of research would see the researcher developing or refining a statement of the problem or question upon which research procedures would be focussed. This was not possible given the interactive model. Over the course of the first seven months of the research project, several sets of research questions were identified. As time progressed, these questions became more narrow and specific. The result was an exploratory program of research that used both qualitative and quantitative data sets to provide information for six specific research questions. What follows will be an explanation of the team work that lead to the final questions.

Beginning in September 1977 the research team began to delineate a process leading to the identification of a research question. This process included lengthy discussions by members of the team, extensive classroom observation within the classrooms of the teachers on the interactive team, literature reviews by the team, and conversations with other teachers in the State of Vermont. These activities served two necessary goals for the Vermont Team:

1. The determination and narrowing of possible research questions and an assessment of the usefulness of research resulting from the investigation of these questions to the teachers on the interactive team, and
2. A determination of "conventional wisdom" held by a selected group of Vermont teachers (not team members) regarding the interest in and usefulness of potential research questions identified by the interactive team.

Discussions barren of direct classroom observation proved fruitless for the team in their initial efforts to identify a question that held common

interest for all concerned. The questions generated during this period of time were too global and not specific enough for research purposes. Therefore, following the suggestion of the team's researcher, extensive descriptive observations were carried out by the researcher and trainer in the classrooms of the team's teachers. These observations and their analysis by all team members began to focus areas of possible inquiry as the team grappled with issues of immediate concern dictated by the rich but limited context of one small school. The following list of questions reflect a sample of the diversity of interest areas developed during the first month of the project. They are stated exactly as recorded at a team meeting in late September and reflect the varied interests of the teachers on the team.

1. What effect do split sessions (AM and PM) have on the learning of children? Do some children learn better (less boredom, less time wasted, less fatigue) at morning or afternoon sessions?

2. What effect does class size have on the verbalizations of children in a classroom? How is teaching different with a class of twenty-seven youngsters compared to a class of fifteen students?

3. What social growth takes place on playgrounds and school bus rides? How does it relate to the children's behavior in a classroom?

4. Do teachers really do what they think they are doing when they speak about their instruction?

5. What are the distinctions between how a teacher perceives her instruction and how her children perceive her instruction?

6. How would learning be affected if children were taught an integrated curriculum focussed around topics of interest (jigs) as distinguished from teaching single unitary subjects (mathematics)?

7. How many times and over what length of time does a teacher have to repeat and reiterate a certain topic to insure "proper learning"?

8. Over time, given the same teacher and students, how do classroom instructional and social processes change?

9. What is the effect of the affective climate in a classroom on the instruction carried out in the classroom? Do children and teachers perceive the affective climate in the same ways?

10. What is the best way to develop useful work habits in children?

Further observation and discussion by the team developed a heightened interest in question nine, the question concerning the affective climate in the classrooms of the team's teachers. They reported that their own personal mood caused a certain affective climate in their classrooms and affected their interactions with students and in some cases, the interactions of students with each other.

Still it was difficult to get any resolution by the team on a specific question. Real events in real classrooms that occurred between team meetings affected the perceptions of individual team members as to the relative importance of varied questions. The problem the team faced was not a paucity of possible topics for research, but rather too many possibilities. The issue raised was an important one. The team, led by the teachers, surfaced a multitude of potential research from observation and descriptions of just three classrooms. Perhaps the tradition of excluding practicing teachers from this part of the research process grew from precisely this point: there were too many "unclean" research possibilities offered by teachers when researchers cared to ask.

It was evident that the area of "affective climate" was one in which little research specific to those terms had been carried out. A computer search of the ERIC system yielded only seven studies wherein "affective

climate" was even mentioned, none of which related to elementary teachers and students.

To gain some movement on the dilemma facing the team, a decision was made to assess the "conventional wisdom" of other teachers in the State regarding a sample of questions generated by the Vermont Team. The team felt it had been too self-contained in its deliberations and it was decided to seek the advice of a larger group of teachers in the state. A total of thirty teachers in three elementary and secondary schools was asked to complete a questionnaire (Appendix A) by ranking five questions to indicate a personal interest in one of the five questions. These questions were questions the interactive team selected as topics they would be most interested in researching. The five questions were:

1. What effects does ignoring have on a given student's behavior a teacher wishes to strengthen or change?
2. What effect does reviewing the teaching protocol of a given lesson have on that teacher's subsequent teaching?
3. How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?
4. In terms of a teacher's specific objectives for a given lesson, what other outcomes were achieved during the teaching of the lesson in addition to the achievement of the specific objectives?
5. How do our children perceive us during our truly authentic teaching moments and what is the effect of these moments on our children's behavior?

Table 1 reports the percentage of rankings for each of the above questions.

Table 1. Rankings of five possible research questions to assess conventional wisdom of teachers-at-large (N = 30)

Questions	(high) 1	2	3	4	5 (low)
1.	10%	3%	33%	30%	23%
2.	17%	3%	17%	33%	20%
3.	47%	30%	7%	7%	10%
4.	10%	23%	17%	27%	20%
5.	13%	30%	27%	3%	27%

Rather overwhelmingly, a large percentage of teachers the team questioned thought that investigating question number three would be "most useful" for what it could provide practicing teachers. Therefore, the Vermont Interactive Project Team initially selected question three as the focus of its research efforts: How do students' perceptions of the affective climate in a classroom compare with the teachers' perceptions of that climate?

Subsequent to this decision, an Invitational Conference was held with nine area teachers to gather more specific information regarding the team's research focus. At this meeting, the question was discussed and the participants completed a lengthy questionnaire probing their opinions concerning the "affective climate" in their classrooms and the elements of their daily interactions with students that contributed to the affective climate in their rooms. This questionnaire is included as Appendix B. Because of the interest expressed by these teachers, the team was encouraged to continue its focus upon "affective climate".

Following this decision, a series of research designs were drafted which narrowed the focus of the research question. Utilizing available technical assistance from the Far West Laboratory (in the persons of Drs. Ward and Tikunoff), the research team decided to approach their question from a different point of view. While "affective climate" was clearly an important variable to the team and other teachers as well, the focus on student perceptions and the comparison to teachers' perceptions were dropped. It was thought the perceptions of young children would be too general and diffuse to yield a piece of research that reflected high quality. Since teachers on the research team had noted their daily mood seemed to contribute to a certain affective climate in the classroom, it was decided to focus the research on the possible relationship of teachers' mood to their instructional behavior. Critiques by a panel of advisors (National Advisory Panel) were useful in focussing the efforts of the Vermont Team. The question reflected the following judgment. Few research efforts had focussed on the mood of a teacher and its effect, if any, on her classroom instruction. To assume that the mood of a teacher did have an effect on her teaching would have meant the team believed there was a relationship between mood and instruction. This belief was unfounded in research data. Yet many teachers believed relationships existed. Therefore, the study reflected a goal of exploring possible relationships as suggested by teachers rather than attempting to prove the existence of a given causal relationship between mood and certain supportive,instructional behaviors

The final research question selected by the Vermont Team was:

> Are there relationships between the mood of a teacher and the teacher's classroom instructional behavior? If so, what are the nature of these relationships?

Having defined a research question, the team then focussed its efforts on the definitions of "mood" and "instructional behaviors".

In this study mood was taken to be a "state" variable. In this context, mood was seen as a "reasonably unstable feature of the person", a definition wholly consistent with the definition of mood taken from Webster's New World Dictionary of the American Language: mood implied "a state of mind in which an emotion (feeling) or set of emotions gains ascendancy". Given this definition, the following uses of mood applied.

> This morning really went well. Speaking with Jim before school really put me in a happy mood for the day.
>
> That racket in the lunchroom always sets me off. If I don't get away from it, I start the afternoon lesson with a knot in my stomach and it's hard to be in a good mood with the kids.

This view of mood as a "state variable" was contrasted to a view of mood as a "trait" variable, a "reasonably stable feature of the person". Mood as a trait variable is not what the research team proposed to study.

Operationally, mood was determined in two ways: 1. Teachers' responses to a mood check-list were averaged to derive a general mood score for a given lesson; 2. Teachers were asked to recall lessons they had taught where they had been in the best and worst of moods. These definitions and the manner in which they were operationalized are discussed at length in Chapter Three, the section delineating the methodology of this study.

The instructional behaviors selected by the team to be studied in terms of their possible connection with mood were called supportive instructional behaviors (SIB's).

In research on teaching, a variety of researchers have used different descriptive categories to identify classroom events that support and encourage

opportunities to learn. In the research reported in the present study, no attempt was made to select from the literature behaviors which had been related to effective or ineffective teaching. Rather, it was the purpose of the study to select a set of classroom behaviors that were used previously by respected researchers in the field to delimit and sharpen our view of what occurred in classrooms. Our task was the selection of a set of descriptors that could be used to train classroom observers to see, with reliability, similar behaviors. Care was taken to link these behaviors to a set of previously established categories so researchers, trainers, and teachers beyond our immediate setting could place our work in context. And, care was taken to link these classroom events to a notably real world context so that school teachers could identify with our research focus.

In reviewing the literature, the team moved from the philosophical work of Dewey (1902) through the pioneering efforts of Anderson (1939) and Withall (1967), to recent research by Brophy, Evertson, et al. (1975), Stallings and Kaskowitz (1974), and Tikunoff, Berliner, and Rist (1975). In the context of this study, supportive instructional behavior involved behaviors related to teaching events and behaviors focussing on student actions.

In terms of recent research that utilized supportive instructional behaviors, Brophy, Evertson, et al. (1975) mentioned three that were of interest:

1. "positive affect" - frequency and intensity of positively supporting or reinforcing teacher behaviors;
2. "teacher enthusiasm" - verbal or non-verbal communication by the teacher of enthusiasm, enjoyment, excitement associated with classroom activities;

3. "teacher initiated problem solving" - teacher frequently directs questions or problems to the class, followed by elaborating questions to other students or probes into student answers.

These three related to five categories of behavior reported by Stallings and Kaskowitz (1974):

1. adult praise;
2. teacher encourages pupil to express self freely;
3. positive corrective feedback;
4. adult acknowledgment to children; and
5. teachers ask new question after correct (or incorrect) answer.

These sets of behaviors linked to six categories of classroom interaction reported by Tikunoff, Berliner, and Rist (1975).

1. accepting: teacher reacts constructively (overt, verbal, non-verbal) to students' feelings and attitudes;
2. attending: teacher actively listens to what a student is saying, reading, reciting;
3. optimism: teacher expresses positive, pleasant, optimistic attitudes and feelings;
4. promoting self-sufficiency: teacher encourages students to take responsibility for their own classwork;
5. monitoring: teacher checks in on student's progress regularly and adjusts instruction accordingly.

The second class of supportive instructional behaviors were those occurring among students. Brophy, Evertson, et al. (1975), mentioned two classes of behavior significant in this regard.

1. "pupil to pupil interaction" - extent of verbal interactions involving class activities between one student and another, a group of students, or indirect responses to the teacher; and

2. "level of attention" - attentiveness of class toward the teacher or appropriate classroom activities.

In the Stallings and Kaskowitz (1974) work, "children working independently" and "students working in groups supervised by teacher" matched the Brophy, Evertson, et al. (1975) categories. These categories related to Tikunoff, Berliner, and Rist's (1975) description of:

1. "cooperation" - students cooperate with other students, teacher; willingness on part of the students to help each other; and
2. "engagement" - students express eagerness to participate, appear actively, productively involved in learning activities.

In addition, Tikunoff, Berliner, and Rist (1975) derived the category of conviviality:

"conviviality" - warmth, family-like class-room interaction; good feelings between teacher-students, students-students.

"Conviviality" was included in this study because it described a classroom behavior that "supports and encourages opportunities to learn" and therefore fell within the stipulated definition of supportive instructional behavior.

Table 2 condenses the categories of instructional behavior reviewed in this section.

The present study utilized the categories derived from the Tikunoff, Berliner, and Rist (1975) work as its operationalization of Supportive Instructional Behavior. These behaviors are listed below. Their definitions are found in Chapter Three and in Appendix C.

Teacher SIB's:
1. acceptance
2. attending
3. monitoring

Table 2. Research citations linked to Supportive Instructional Behavior

Observational Categories	Brophy, Evertson et al. (1975)	Stallings and Kaskowitz (1974)	Tikunoff, Berliner, and Rist (1975)
Teacher Supportive Instructional Behavior	positive effect	positive corrective feedback adult praise teacher encourages pupil to express self freely	accepting optimism
	teacher enthusiasm	adult acknowledgment to children	pacing monitoring
	teacher initiated problem solving	teacher asks new question after correct (incorrect) answers	attending promoting self-sufficiency
Classroom Supportive Instructional Behavior	pupil-to-pupil interaction	children working independently	cooperation
	attentiveness	students working in groups supervised by teacher	engagement conviviality

	4. pacing
	5. promoting self-sufficiency
	6. optimism
Student SIB's	7. cooperation
	8. engagement
Classroom SIB	9. conviviality

Having defined the crucial variables in the study, the research team was able to narrow still further the focus of its research effort. Guided by the general research question (are there relationships between teachers' mood and their instructional behavior?) six specific questions were formed to guide the creation of the research methodology.

1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?

2. What relationships existed between supportive instructional behaviors and general mood scores where individual supportive instructional behaviors were ranked highest and lowest?

3. What were the relationships existing between supportive instructional behaviors and recalled mood for lessons where recalled mood was highest and lowest?

4. What relationships existed between supportive instructional behaviors and recalled mood for lessons where supportive instructional behaviors were ranked highest and lowest?

5. Did shifts of mood occur during the observed lessons? If they did, what patterns of supportive instructional behaviors occurred before, during, and after the shifts of mood?

6. What were the relationships among supportive instructional behaviors during the lessons taught by each teacher?

Conclusion

The search for and identification of a research question was a complicated process for the Vermont Team. It was, as all aspects of this study seemed to be, a creative effort. The definition of variables and determination of methodology reformed the nature of the research question. This process seemed to be part of the interactive model at work. The researcher, with variables and methodology in mind, could not state a "neat" fitting question initially. The questions finally became clear with the final drafting of the research design. Figure 2 condenses the process of question identification undertaken by the Vermont Team.

Figure 2. Progression of question definition of the Vermont Interactive Team

October 15, 1978 Check of Conventional Wisdom	October 30, 1977 (Questions Due)	December 5, 1977 (Research Design Due)	April 3, 1978 (Research Design Approved)
1. What effects does ignoring have on a given student behavior a teacher wishes to strengthen or change?	How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?	What is the effect of a teacher's mood on the quality of teaching and learning in his/her classroom?	General Question: Are there relationships between the mood of a teacher and the teacher's supportive instructional behavior? If so, what is the nature of these relationships?
2. What effect does reviewing the teaching protocol of a given lesson have on that teacher's subsequent teaching?			Specific Questions:
3. How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?			1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?
4. In terms of a teacher's specific objective for a given lesson, what other outcomes were achieved during the teaching of the lesson in addition to the achievement of the specific objectives?			2. What relationships existed between supportive instructional behaviors and general mood scores when individual supportive instructional behaviors were ranked highest and lowest?
5. How do children perceive us during our truly authentic teaching moments and what is the effect of these moments on our children's behavior?			3. What were the relationships existing between supportive instructional behaviors and recalled mood for lessons where recalled mood was highest and lowest?
			4. What relationship existed between supportive instructional behaviors and recalled mood for lessons where supportive instructional behaviors were ranked highest and lowest?
			5. Did shifts of mood occur during the observed lessons? If they did, what patterns of supportive instructional behaviors occurred before, during, and after the shifts of mood?
			6. What were the relationships among supportive instructional behaviors during the lessons taught be each teacher?

CHAPTER TWO

A DESCRIPTION OF THE TEACHERS AND CLASSROOMS STUDIED

Introduction

This chapter reports the process through which nine teachers were selected to become the sample group upon whom the research proposed in this study was carried out. Descriptions of the districts and schools represented by these teachers will be given in addition to characteristics of each of the nine teachers and certain academic and socioeconomic characteristics of their classrooms. Description of their classrooms as an instructional environment will not be found in this chapter. These descriptions occur in the case studies for each teacher presented in Chapter Four.

Recruitment of Research Sample

During November 1977, the research team made several decisions regarding the nature of the research sample. As part of the drafting of the initial research design for this project, the team decided to carry out the research by focusing on elementary school teachers. Since the teachers on the research team represented teaching positions in kindergarten, first and third grades, they decided the research sample should focus on second grade teachers. By doing this, it was felt the teachers on the team would have the most empathy for what happened in the classrooms of the teachers upon whom the research was to be carried out. This would enhance their potential contributions as part of the data analysis team.

The second decision concerned the distribution of these teachers. While it is true that Vermont is a rural state, its inhabitants are aware that it holds within it political units representing urban and suburban population centers as well as its rural settings. The suburbs of Vermont's five urban

centers appear the same as "Suburbia, U.S.A.", with the exception of sprawl and size. The same may be said of its urban areas. These areas, their appearance, their manufacturing base, their socioeconomic levels, and their crime statistics are a microcosm of their larger, national counterparts. Because of this perceived diversity, the research team decided that the research sample should reflect each of these areas: urban, suburban, and rural. The logic that guided this decision was twofold. First, it was assumed the broader the social context represented by the teachers and schools the richer the data base would be for the questions being investigated. Second, if the findings of this study were to appeal to teachers across the country, then it made sense to select a sample that represented areas that were typical to other areas in the country. A teacher in Dallas, Texas might pay little heed to a case study from Vermont. But that teacher might be somewhat more interested if he/she knew the case study represented another "urban" classroom.

The third decision concerned the number of teachers needed to comprise the research sample. Two criteria had to be met. Because extensive qualitative information would form a substantial part of the data base in the study, and because time for analysis and writing was a limiting factor, the sample had to be kept relatively small. Second, enough teachers had to be selected from the three geographic areas to be "representative" of that area. Initially, it was decided to select four teachers from each area as the sample. The team later decreased the sample size by three teachers, one less from each area. This decision was reached because the extended time necessary to gain approval of the research design lessened the time available to carry out the research. The identification of three urban, three suburban and three rural second grade teachers began in late March, 1978.

The trainer and researcher on the research team had extensive contacts in many public schools throughout the state and these contacts were used to identify the sample of teachers. While the involved work of selection was carried out primarily by the trainer, the researcher also took part in the process. Initial contacts were made with principals or superintendents in several Vermont school districts. Meetings were organized at the school to explain the project and to gather their support. Of the initial contacts made, only one failed. A rural principal, new in his position, while expressing great interest in the project and its research methods, decided, upon consultation with his staff, not to involve the school in this project. The school had a recent experience with a curriculum development project having, as part of its design, an intensive behaviorally oriented pupil evaluation procedure. The community voted to end this project, the principal in charge at the time resigned, and the teachers in general were not enthusiastic about any kind of research being carried out in their school.

This process lasted from the first of April to the fifteenth of May. It was prolonged by the length of time it took to get on busy people's appointment calendars, scheduled meetings cancelled or forgotten, and time spent with the rural school that decided not to participate. When the process ended, nine teachers had agreed to participate. They represented six different schools in three separate school districts, one urban, one rural, and one suburban. Eight teachers volunteered to participate in the study; one was volunteered by her principal. When the staff discovered this situation, the trainer spoke to this teacher and explained the project in detail. Subsequent to this conversation, the teacher agreed to participate because she wanted to.

For their participation in the project, the teachers were paid fifty dollars. They were asked to allow an observer in their room for four non-consecutive days to record classroom events during the teacher's reading

lesson and during the instructional time that occurred during the "most difficult time period" for her during the day. In addition, they were asked to remain after school on the final three days they were observed to be interviewed by the observer for a time period not to exceed one hour. As part of their responsibilities, they completed three questionnaires: an initial questionnaire requesting specific information about their classrooms, their daily schedule, and their reasons for participating in the study. Subsequent questionnaires requested follow-up information and demographic data and were complete once the observations had ended (Appendix C). Each teacher was promised confidentiality in any information that would be reported and they received a set of classroom and interview protocols representing the data base gathered by the observer from their classroom.

Table 3 offers a comparison of the academic and socioeconomic levels of the schools that were research sites. The table also shows the coded information regarding teachers and school sites. The coded information will remain consistent throughout the remainder of this study. The percentage of children receiving free or reduced lunch at school is given to indicate a comparison of districts represented in the study. The reduced lunch information portrays a socioeconomic decline in school population as one moves from suburban, to rural, to urban settings.

The Urban District

The urban district was located in one of the two largest cities in the state. Situated near Lake Champlain and the Green Mountains, the city served as a marketing, manufacturing, and service center for northern Vermont and adjacent parts of the Province of Quebec. Railroads, airplanes, and the interstate highway system converged on the area bringing a large number of tourists to bolster the local economy. Fall and Winter were particularly busy

Table 3. Demographic data for school settings

	Research Sites					
	Urban		Suburban		Rural	
1. Number students attending schools in district	5,411		2,550		690	
2. Number schools in district	8		5		3	
3. Research sites (schools)	U1	U2	S1	S2	R1	R2
4. Participating teacher at each site	F	L,M	I	O,G	N	H,J
5. Comparison of school academic levels to state levels*	low	low	high	high		average to high
6. Comparison of school socioeconomic levels to state levels*	low	low	high	high		average
7. Percentage of children at school on free-reduced lunch program	89%	90%	11%	NA	30%	38%

NA: information not made available by school principal
*: as judged by teacher

seasons reflecting an international interest in the areas of recreational opportunities. Sight-seeing, boating, and skiing are major tourist activities. Recent urban redevelopment has begun to renew the downtown area and the dislocation of small but well developed communities of people resulting from this "renewal" has caused social problems within the area. The city's 40,000 inhabitants were divided into several political wards, one of which housed the major portion of economically depressed people. 5,411 students attended the city's eight elementary schools, two junior high schools and one comprehensive high school. Six hundred nineteen teachers and support staff serviced these schools.

The Suburban District

The suburban district was located near one of the state's largest cities. It was characterized by four shopping malls unlike most of the State of

Vermont and recent bumper stickers have decried the "malling of Vermont." The district had no defineable business district. Rather, its most predominant feature was strip development along two major thoroughfares that travel East and South through the district. These roads were bordered by quick food restaurants, car dealerships, gas stations, motels, small shops selling ski equipment, gardening needs, swimming pools, and other sporting accessories. Several large condominium complexes have been built in recent years and several more are currently under construction. These reflect the housing needs occasioned by the construction of two large "clean" industrial complexes. The residents of the area were a combination of "oldtimers" who moved from the city in years past and "newcomers" who have moved in recently. A large portion of the newcomers worked at the new factory sites and decided to locate in the district because of the reputation of its schools and the advantages of suburban living. The district had three elementary schools, one middle school, and one high school. 2,550 students attended these schools and were served by 190 faculty.

The Rural District

The rural district was located forty miles distant from the nearest urban center. Situated amidst low rolling hills typical of Northwestern Vermont, it appears to the traveler as that part of Vermont that comes to mind when people say "Vermont is a state of mind." Travelers on the main roads would not see the rural poverty evident in the district. The traveler of dirt roads would. The schools in the district served a population scattered throughout the district in small villages. The people of the area worked either in nearby villages, or were involved in some aspect of the dairy cattle and farming industries. A small portion of the population traveled to the larger

cities for employment. 690 children attended three elementary schools spread across the length of the district and were taught by thirty-two faculty. Two of these schools had teaching principals and each school had its own school board, the latter being a characteristic of all small rural elementary schools in the state.

Description of Teachers and Their Classrooms

Demographic information concerning each teacher and the academic and socioeconomic levels of their classrooms are condensed on Table 4. Classroom maps and instructional characteristics of each teacher's classrooms are detailed in the case study for the particular teacher.

Significant points represented in Table 4 are detailed below.

1. The teachers were women with a variety of background and experience. They ranged from a thirty year old with ten years experience to a forty-two year old with three years experience, to a fifty-four year old with twenty-seven years experience.
2. The educational background of the teachers ranged from a woman who had worked as an aide for nine years while working on her certification, to three teachers with M.Ed. degrees.
3. The urban schools reflected the most economically depressed group of students. In one urban school, 90% of the children received Title I services. The schools with the lowest percentage of Title I assistance were the suburban schools with 14%.
4. The suburban schools were higher than the perceived state norms both in terms of their academic rank and the socio-economic position of the students.

5. The rural schools were midway between the urban and suburban schools with respect to their socioeconomic and academic comparisons to the perceived state norms.

Table 4 gives the objective facts about the research sample and their classrooms. Of additional interest would be why the teachers volunteered to participate in the study and what they thought about their moods and their interactions with students. As a final step in this process of introducing the teachers of the research sample, Table 5 gives their answers to these questions as gleaned from the initial, pre-data collection questionnaire.

Table 4. Research sample demographic data for teachers and their classrooms

	Urban			Suburban			Rural		
	U2		U1	S1	S2		R2		R1
	L	M	F	I	O	G	J	H	N
Teacher									
1. Teacher's Age	26	47	54	41	28	59	30	30	42
2. Number Years Experience	4	1, plus 9 yrs. aide	27-1/2	19	6	18-1/2	8	10	3
3. Highest Degree	M.Ed.	B.A. equivalent	B.S.	M.Ed.	B.S.	B.S.	B.S.	M.Ed.	B.S.
4. Number Children in Class	21	21	20	16	17	18	21	21	15
5. Number Children in School	370	370	255	409	266	266		300	228
Achievement									
6. Achievement Range in Classroom	*** low-hi	*** low-hi	"below grade level"	1.7 - 4.5	**	2.1 - 6.0	NA	1.7 - 5.2	
7. Comparison with School	low	low	low	low	**	avarage	average	average	average
8. School Comparison with State	low	low	NA	high	high	high	average to high	average to high	
Socioeconomic									
9. Number Children Receiving Title I Services in Classroom	60%	60%	90%	14%*	14%*	**	NA	44%	23%
10. Socioeconimic Comparison with Rest of School	low	average	average	low	**	average	average	average	
11. Socioeconomic Comparison (School with State)	low	low	low	high	high	high	average	average	

NA not available at time of publication
* figure for entire school
** school would not release this information
*** teacher's estimation

Table 5. Teachers' responses to questions concerning mood and their participation in project

		WHY DID YOU AGREE TO PARTICIPATE?	IS THERE A RELATIONSHIP WITH YOUR MOODS AND YOUR RELATIONSHIPS WITH YOUR STUDENTS?
URBAN	L	My individual growth affects my students' growth and growing and developing is what learning is all about.	Yes. An individual's state of mind affects his interactions with all people.
	M	I think it's a chance for me to grow--see myself as others see me.	Yes. Less communicative (when I'm in a down mood).
	F	To create a better relationship with UVM (the university of the researcher and trainer) and the _____ Public Schools.	Yes. Just does, only human nature.
SUBURBAN	I	I like to participate in anything that will help me to be a better teacher.	Yes. The children will respond better if I am in a good mood.
	O	Interested in this type of research.	Yes.
	G	I felt there was the need for such a study with the possibility of being able to find solutions and help lessen the need.	Yes. When I feel tired, frustrated, pressured, worried, etc., I am less patient and aware of their needs because I am more aware of my feelings.
RURAL	J	I'm interested if moods really affect my teaching.	Yes. The things I am most excited about, the children usually participate in and do well.
	H	I'm a rather moody person and it sounded interesting.	Definitely. When I'm in a terrible mood I'm very short on patience.
	N	To receive helpful feedback.	Yes. My mood influences the degree to which I listen to them and they to me; the degree to which we cooperate on projects.

CHAPTER THREE

THE RESEARCH METHODOLOGY

Introduction

This chapter reports the manner in which data, both qualitative and quantitative in nature, were gathered and analyzed to address the central question of this exploratory study: are there relationships between teacher's mood and their supportive instructional behavior? The chapter will discuss in sequence the specific research questions that guided the collection and analysis of data and the data sets and sources of data sets related to those questions. The selection and training of classroom observers (ethnographers) will be discussed and the various steps of data collection and analysis will be described.

The Research Questions

The investigation of possible relationships relating teacher mood to supportive instructional behavior was guided by six specific research questions.

1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?

2. What relationships existed between supportive instructional behaviors and general mood scores when individual supportive instructional behaviors were ranked highest and lowest?

3. What were the relationships existing between supportive instructional behaviors and recalled mood for lessons where recalled mood was highest and lowest?

4. What relationships existed between supportive instructional behaviors and recalled mood for lessons where supportive instructional behaviors were ranked highest and lowest?

5. Did shifts of mood occur during the observed lessons? If they did, what patterns of supportive instructional behaviors occurred before, during, and after the shifts of mood?

6. What were the relationships among supportive instructional behaviors during the lessons taught by each teacher?

Each question required the existence of a specific data set. These data sets were generated from a variety of sources, sources that were qualitative and sources that were quantitative in nature.

Data Sets and Sources of Data

Supportive Instructional Behaviors Ranked for Each Teacher's Lesson

During the observational section of this study, the nine teachers, on whom the research was carried out, were observed for four complete days. The first day of observation was for purposes of acclimating the observer to the classroom and the teacher and children to the observer. No data were collected during the first day of observation for purposes of the study. During the second, third, and fourth days' observation, narrative accounts of two lessons taught during the day were recorded by the observer. The two lessons observed were the teacher's reading lesson and the lesson taught during the time of the day the teacher had indicated was "most difficult" for her. Each observation lasted for approximately 30-45 minutes. Immediately following each observation, the observer used a tape recorder to record the description of the lesson she had observed. These tapes were then transcribed into a written description of the lesson called a classroom protocol. Figure 3 is an excerpt from one such protocol. In summary, 54 classroom protocols were generated, 27 reading lesson protocols and 27 protocols of lessons taught during the most difficult time during each teacher's day.

Protocols then were analyzed by the team. This was done by coding each protocol for evidence of each of the nine Supportive Instructional Behaviors

Figure 3. Protocol excerpt

Teacher Number: I
Student Number:
Date of Observation: May 30, 1978
Researcher Number: YX
Protocol Number: Observation

1. This is my last day of observation in [redacted]
2. [redacted] classroom at [redacted] School. This
3. is the first observation of the day, May 30.
9:20 4. The time is now 9:20. The noise level is
5. one. The children have just returned from
6. their music class. Music will be a second
7. special period of the day. Their day began
8. with gym. The children are settling into
9. their seats. The noise level is now one.
10. The teacher says, "OK. before we continue with
11. our articles for school newspaper, I want you
12. to tell me whose mothers don't work." She
13. is saying this to the class from her seat at
14. the reading table which is in quadrant four.
15. [redacted], [redacted], [redacted], [redacted] and [redacted], all
16. raise their hands. The teacher takes down
17. their names. I need to find some mothers for
18. our trip tomorrow. As she is writing down
19. the names she says, "[redacted], is your hand up?"
20. [redacted] had his hand raised slightly. "Yes,"
21. he nodded. "Well, get your hand up so I can
22. see it. I can't see it," she said in a firm
23. voice. [redacted] raised her hand and said, "Are
24. we going to the mall in New York or the mall
25. here?" The teacher looked at [redacted] and said
26. in a very quiet voice, "Didn't I say Burlington?
27. Remember the letter I sent home? Didn't the
28. letter say the mall in Burlington?" Her tone
29. of voice and expression seemed to hold a trace
30. of annoyance. [redacted] just nodded and looked
31. away. [redacted], [redacted] and [redacted] began holding
32. a library book over their heads. The teacher
33. got up from where she was sitting and wrote
34. "tomorrow" on the board. There was already a
35. list of words written on the blackboard. The
36. list was there when the children came back and
37. was not there when I arrived in the morning
38. before the children went to gym, so I assume
39. the teacher wrote this particular list of
40. words on the board while the children

(SIB). The definitions of each of the SIBs with illustrative examples for each follows. A discussion of how the coding was accomplished appears later in this chapter.

1. Acceptance.

We mean:

--constructive reactions (overt, verbal, non-verbal) to students' feelings and attitudes

--teacher is aware of students' emotional needs and adjusts his/her behavior to accommodate them

--teacher seems willing to accept students' behavior without criticism

Examples:

1. After Susan wrinkles up her face and says, "Good grief!" she looks frustrated. Mr. Combe says, "Yeah. That's a tough problem."

2. Sometimes Karen goes back and forth to the teacher three or four times in a few minutes. Mrs. James commented on this and said Karen is a student who always has to get things off her chest before she can settle down to work.

3. The teacher talks to the class about how students and adults sometimes worry about whether they will do well on a task. Students also participated in the discussion.

4. The teacher goes over to Steve and says, "You've got a big frown on today. Is something bothering you?" Steve replies, "No." Teacher asks, "Are you sure you don't want to talk about it?" Steve says no and the teacher says okay.

We do not mean:

--criticism to the effect that students "ought to know better."

--teacher ignores or refuses to talk about feelings

--teacher pushes students to point they feel nervous or uncomfortable

Examples:

1. Billy has been out of his seat most of the morning. He has worked only from time to time and even then only for a few minutes. His teacher shouts, "Billy! Why can't you sit down and get to work?"

2. Linda punches George, and George starts crying. Mr. Smith looks at him and says, "Boys don't cry."

2. Attending.

We mean:

--teacher actively listens to what a student is saying, reading, or reciting.

--teacher acknowledges students activity by nodding, by saying "uh-huh," "Yes," smiling or giving an appropriate facial expression.

Examples:

1. While Sandy is telling about her new cat, the teacher is nodding and smiling, looking directly at the girl.

2. Teacher interrupts Sam, who has interrupted Tracy, "Let Tracy finish, please." Then, to Tracy she says, "Go on Tracy." Teacher has walked to Sam and put her hands on his shoulders from behind. She continues to listen intently to what Tracy is saying.

3. Lucy is answering teacher question. Teacher waits while Lucy finishes, then asks, "And how do you feel about that Lucy?" Teacher looks questioningly at her and leans forward, listening.

We do not mean:

--teacher lack of involvement in learning activities.

--teacher only pretends to pay attention to learning activity.

Examples:

1. Student is reading her social studies report to the class. While this is going on the teacher is looking down at her desk and appears to be correcting papers.

2. Student is describing an incident involving her dog being lost. The teacher is staring at two boys in the back of the room. Teacher tells the boys that they should be doing their reading. Teacher then asks who is it that was telling her story about the dog.

3. Student is reading to the teacher. It is curious that while the pupils are being evaluated, the teacher does not give his full attention to the student but simply goes through the motions in a very superficial fashion.

3. Conviviality.

We mean:

--warmth; family-like quality to classroom interaction.

--good feelings between teacher and student, students and students.

--friendship encouraged between teacher and students and students and students.

--lots of smiling.

--tension-free atmosphere.

--teacher and students laugh together.

Examples:

1. Teacher is moving about room, stops at Lucy's desk. Lucy looks up, shows her work to teacher. Teacher laughs, Lucy giggles delightedly. Teacher touches Lucy on shoulder, then moves on and Lucy goes on with her desk work.

2. Teacher greets children in a friendly way. She has her arms around two girls.

3. Often the teacher and children will discuss things that have happened to them outside the context of school and instruction. For example, over the weekend Tony hit a homerun in a baseball game. He spoke about the game to the class and a discussion then evolved with some children mentioning their participation in little league and others stating whether or not they liked to play baseball.

4. When student is taking his pulse he says, "I lost

mine at sixteen." Teacher says, "Do it again." She is pleasant about this and Billy smiles at her.

5. Even when teacher corrects students her tone is soft and encouraging.

We do not mean:

--laughter at someone else's expense.

--joviality on part of teacher, but not returned by students, or visa versa.

--rigidity of classroom interaction.

--hostile feelings expressed between the teacher and students and between students and students.

Examples:

1. Teacher cannot seem to get the children to cooperate with her. She often addresses students in a loud and unfriendly tone of voice.

2. Two groups of students are often seen taunting each other and causing disturbances within the classroom.

3. Most of the teacher's time seems to be spent reprimanding students.

4. Cooperation.

We mean:

--student expresses willingness to help other student

--teacher requests that students help each other

--students attend to what is being taught and appear to cooperate with the teacher

--student helps other to finish a task, lends an object to another, etc.

--affection and warmth among students

Examples:

1. Students would do their work without complaining.

2. During a math class Ricky shouts out loud that he needs an eraser. Dino says, "I got one." Vicky also offered him hers.

3. Teacher calls on Kelly, "What does it look like?" Kelly cannot answer. Then the teacher asks Kelly to call on someone else to help.

4. Students write stories to each other. Teacher distributes letters among students. Teacher asks, "Does anybody else want to read?" Sharon says, "I do but I can't read it!" Denise offers to read the letter for her, which she begins to do.

We do not mean:

--student hits another student; swears to another student, spits at another, pushes another

--student refuses to help other student

--students are not allowed to help each other answer questions

--students are encouraged to compete with each other

5. Engagement.

We mean:

--students appear to be involved in the learning activities

--students look productively busy

--students react positively to the teacher's encouragements, they appear eager to work

--student express happiness through gestures, verbally, etc., at giving the correct response

Examples:

1. Student goes to the teacher and shows his workbook to her. The teacher says it's correct. The student goes back to his place with a big smile on his face.

2. Students are discussing a story they have read. They smile, laugh and talk a lot while discussing.

3. Teacher asks the class, "What do you have to share with us this morning?" Most of the students take turns and share with the rest.

4. Observer's note: "They are working industriously and don't seem distracted by the construction going on outside the window, even though it's driving me crazy!"

We do not mean:

--students seem bored, not involved, unhappy

--students don't appear to enjoy or participate in the learning activity

--teacher must administer much discipline because of disruptiveness of students

Examples:

1. Teacher has instructed the students what to do. Teacher announces that it's time to begin working. Students should pick up their ditto sheets. Students remain in their seats, nobody seems to move. Students don't seem to want to work, they look unhappy.

2. Students are working on their math contracts. Paul looks around - he's daydreaming. He's not interested in working.

6. Monitoring.

We mean:

--teacher contacts students regularly and systematically

--teacher checks in on each pupil's progress periodically, and adjusts instruction accordingly

--teacher utilizes constant process of diagnosing students' needs when prescribing instruction for them

Examples:

1. As children are working on math worksheets, the teacher goes from student to student to check on their progress. She notices Josh is having difficulty. She tells him to go back to page 185, and work through the examples. When he has done this, he should bring his work to her before he proceeds.

2. Ms. Yates gave her fifth graders a pre-test on a punctuation unit on the use of commas. If students did well, they were given one set of worksheets; if they did poorly, they received a different set.

3. Ms. Josephson grouped her second grader class for reading according to their achievement test scores at the end of first grade. As the year proceeded, she moved students from one group to another according to their reading progress.

4. Mr. Sanchez has an open classroom, where children set their own work schedules. He keeps an appointment sheet so that students may check in for "consultation" each day. If students do not check in for a day, he requests that they make an appointment for the next day.

We do not mean:

--teacher attends to students only as they call out his/her name; class is chaotic, disjointed

--teacher makes little or no contact with students except to pass out or collect papers

--teacher teaches same lessons to entire class without regard to individual differences

Examples:

1. Students are working on workbooks at their desks. They call out, "Me. Me.", and "Ms. Glover, Ms. Glover." The teacher runs from desk to desk trying to answer all the students' questions.

2. The teacher sits at his desk correcting papers. He puts a score on each paper and returns them to the students, without comment. If students ask him about the tests, he simply says, "Well, that's an A.", or "That's a C...."

3. Ms. Hall gives the same lessons to the entire class for mathematics. No matter whether students have done will or poorly on past work, they all receive the same new lessons.

7. Pacing.

We mean:

--teacher monitors completion of tasks before proceeding

--teacher is able to perceive student learning rate and adjusts teaching pace appropriately

--teacher shows a realistic understanding of time needed for student or students work completion

Examples:

1. While students are working on a math problem at their desk, teacher moves around the room checking their progress. When everyone completes the task, she assigns another.

2. During a spelling test, teacher gave the word, used it in a sentence, repeated the word, then waited until all students had stopped writing before proceeding to next word.

3. The noise level in room rises. The teacher says, "Okay, we are getting restless. It's time to move on to something else."

We do not mean:

--teacher proceeds too fast, students show frustration

-- concepts and/or materials seem too difficult

--teacher assigns more work than students can do in time given

Examples:

1. Teacher begins to review yesterday's worksheet with group, realizes time structure, stops group and gives answers orally.

2. Teacher is explaining math problems. John says, "I don't get it."; four other students chime in. Teacher keeps on explaining the math problem.

8. Promoting Self-sufficiency.

We mean:

--students take responsibility for their own classwork

--student assumes responsibility for their own belongings

--students are placed in charge of certain clerical and housekeeping jobs

Examples:

1. The teacher has a regular schedule of assigning tasks to the students at the beginning of the week.

2. The students work independently and are allowed to check their answers in the teacher's manual.

3. The students are asked to organize their desks and belongings so that they know where things are and do not have to be dependent on other students or the teacher for help in locating things.

We do not mean:

--the teacher takes time to do things which students could better do themselves

--students do not have any responsibilities in regard to housekeeping jobs

Examples:

1. The teacher goes and gets a pencil (or paper, or book, etc.) for the student.

2. Students are constantly requesting the teacher to do things for them and the teacher complies.

3. Students are not given the opportunity to be monitors or to look after the housekeeping chores of the room.

From these definitions, promoting self-sufficiency was taken to be both the existence of routines in the classroom wherein students took responsibility for classwork, belongings and classroom jobs, and the promotion of routines

for students to take and assume self-sufficiency by the teacher. Examples are:

Existence of routines:

Jason got up from his desk and walked to the teacher's desk, got a paper out of the wire basket that the teacher has on the right hand side of her desk, and sat down again.

Promotion of routines:

The teacher says in a quiet voice, but one that was very firm, "You know that it's your responsibility and you assume that responsibility when you leave the room."

At no time were the promotion of sufficiency taken to be more important than the existence of self-sufficiency.

9. Optimism.

We mean:

--expressing positive, pleasant, optimistic attitudes or feelings on the part of the teacher

Examples:

1. The teacher tells the observer that although these students are the slowest she's ever had, they will do well because they are "good kids".

2. The teacher says to a girl, comforting her, "Cheer up. We all have occasional rainy days. But the sun always shines the next day."

3. The teacher says, "This is going to be a good day."

We do not mean:

--when the teacher remains positive and this is inconsistent with the students' feelings or the present class condition

--pessimism expressed by the teacher

Examples:

1. "Peter, I don't think you will get that math done."
2. "When will this class learn to be quiet?"
3. "I wish it wasn't such a depressing day."

A summary chart was generated for each teacher representing the rankings each SIB received for each lesson for each teacher. Examples of such summary charts are included in the case studies (Chapter Four).

This ranking of the nine supportive instructional behaviors across all six lessons taught by a given teacher represents the data set for supportive instructional behaviors. Its source was the classroom protocols typed from the recorded descriptions of classroom events noted by the observer. (See Figure 3.) Both raw data scores and rankings are presented on Tables 14 and 15 in Chapter Five.

General Mood Score for Each Lesson

Prior to each lesson observed during the data collection phase of the study, each teacher completed a brief check-list of twenty-two mood related adjectives called a Mood Adjective Checklist. Figure 4 represents a sample check-list completed by one of the teachers studied in the research project. In order to complete the check-list, the teacher had to circle a number from one to three which stood for the relative presence or absence of the adjective according to how she felt at the moment. The number 3 meant the adjective (calm) was "strongly felt", the number 2 indicated the adjective was "felt somewhat", and the number 1 indicated the adjective was "not at all" felt. The circled numbers were averaged for each lesson giving a general mood

Figure 4. Mood Adjective Checklist (Example)

Each of the following words describes feelings or mood. Please use the list to describe your mood at the moment you read the word.

If you feel the word strongly describes your mood, circle the number 3 next to the word. If you feel the word somewhat describes your mood at the moment, circle the number 2 next to the word. If the word slightly describes your mood or if the word does not apply at the moment, circle the number 1 next to the word.

Work rapidly. Your first reaction is best. Work down the first column, then go to the next. Please mark all words.

	Strongly	Somewhat	Not at all		Strongly	Somewhat	Not at all
angry	3	2	(1)	carefree	3	2	(1)
pleased	3	(2)	1	fatigued	3	(2)	1
witty	3	2	(1)	industrious	3	(2)	1
drowsy	3	(2)	1	affectionate	3	(2)	1
jittery	3	2	(1)	pre-occupied	3	2	(1)
serious	(3)	2	1	regretful	3	2	(1)
sad	3	2	(1)	refreshed	3	(2)	1
tense	3	2	(1)	playful	3	2	(1)
confident	3	(2)	1	over-whelmed	3	2	(1)
insecure	3	2	(1)	calm	3	(2)	1
gentle	3	(2)	1	frustrated	3	2	(1)

Please describe very briefly any recent event which might be strongly influencing your mood right now, such as: successes, frustrations, sleep loss, personal problems, letter, friend, argument, and so on.

Slight headaches - small run-in with a student - angry to some degree with the administration - angry over Memorial Holiday (Two off instead of Mon.)

score for the lesson. In addition, the mood checklist provided space for the teacher to note qualitatively what factors or recent events might have influenced her mood at the moment.

The general mood score was the data set and its source was the mood adjective check-list, completed by the teacher prior to the lesson.

Lesson of Highest and Lowest Recalled Mood

Following each of the three days during which two lessons were observed, the observer and teacher discussed the observations. This interview was to confirm the accuracy of the observation and to provide information about the teacher's reasons for instructing and/or behaving as she did during observation. These interviews also provided the observer a chance to probe the teacher's opinion as to whether or not she felt her mood had changed during the lessons and what some of the reasons were for a change, once identified. These interviews were tape recorded and the tapes were transcribed. The transcriptions were the interview protocols. Figure 5 is an excerpt from one such protocol. In the last interview, the observer asked the teacher to recall the lesson she felt she had been in the best mood and the lesson she felt she had been in the worst mood. The teacher's responses became the recalled mood data, that is, the lessons of best and worst recalled mood.

The teacher's recalled lessons of highest and lowest mood were the data sets. The source of this data set was the interview protocols. To illustrate, the relevant section from one teacher's interview protocol follows.

(From the interview protocol, Teacher G, May 31, 1978, p. 3.)

Observer: Of the times that I have been here, would you be able to say which was the best mood and which was the worst? Could you isolate one time? You said you felt this afternoon was the best.

Figure 5. Protocol excerpt for recalled mood

Teacher Number: I
Student Number:
Date of Observation: May 23, 1978
Researcher Number: YX
Protocol Number: Interview

This is the first observation that I'm having with [redacted] It is the afternoon of May 23rd after two observations of the class. This is the second day of observation in the classroom. [redacted], "I noticed on the mood adjective checklist you had for the first observation that you had a slight headache, that you had a run-in with a student and that you were angry with someone in the administration. But you seemed so calm through the entire observation, you never raised your voice, you never seemed to get annoyed with any of the children." Mrs. [redacted] "It comes with practice, but within, it's the, maybe...Sometimes I can, but not always. I find that on a bright, sunny day it's easier to put everything aside. If it rains or is cloudy, then it's not always so easy. I mean I'm sure you see a difference on the days when its raining, a difference in the kids. So the weather really does affect the students." Barbara, "I noticed that when .. I can be really up on a day when its beautiful and the rain will tend tc bring me down. In the first observation, I noticed that when you were sitting here with the reading group, [redacted] had her head down on the desk over here, you got up and removed her book and pencil and put it back here but you didn't seem to chastise her." Mrs. [redacted], "She was fooling with some bottle caps and the noise was aggravating. I don't know if you're familiar at all with Project Teach. It's a course that you can take and it teachs you different things that you can do in the classroom to have better control. And one of the things they teach you is to say as little as possible so that you act instead of talk. So that I would not lose the momentum from my lesson, too. In other words, it took less time to pick up the bottle caps, throw them away, take her books and put them on her desk then to stand there five minutes and scold her because she was making noise that was bothering people. And you see, that was her way of getting attention. So, that's why."

Teacher: I thought it was probably the best one. I guess this morning wasn't really a very good one, so it might have been (the worst one).

Table 6 summarizes the data sets and sources related to each specific research question.

Selection and Training of Observers

Clearly, the study required observers who were highly skilled in their abilities to record the flow of events as they occur in classrooms. The observers had to be able to describe accurately the events they noticed during the course of a lesson and to support whatever judgments they made concerning what they saw with behavioral evidence. Because the observers were going to be working classroom settings, it was felt they should have some knowledge of classrooms and school-related teaching and learning.

Selection

Because of this latter criteria, an attempt was made to solicit ex-teachers or substitute teachers as the sample group from which three observers would be chosen. An unsuccesful attempt was made to locate substitute teachers through contacts with several school principals. This effort was not successful due to the time commitment required and the delayed response from several principals. The team researcher and trainer then solicited the cooperation of individuals they knew from their respective roles as teacher trainers. An initial cadre of six potential observers was formed. Three activities were carried out with this group in order to identify their observational skills.

First, an intake interview was held with either the trainer or researcher to acquaint the initial group with what was to be expected of them. During

Table 6. Summary of data sets

OVERALL QUESTION: Where there relationships between the mood of a teacher and that teacher's teaching behavior?

Sub-Questions	Data Sets Needed	Data Sources
1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?	1. Rankings of SIB's for each lesson. 2. General mood score for each lesson.	1. Classroom protocol. 2. Mood checklist.
2. What relationships existed between supportive instructional behaviors and general mood scores when individual supportive instructional behaviors were ranked highest and lowest?	1. Rankings of SIB's for each lesson. 2. General mood score for each lesson.	1. Classroom protocol. 2. Mood checklist.
3. What were the relationships existing between supportive instructional behaviors and recalled mood for lessons where recalled mood was highest and lowest?	1. Rankings of SIB's for each lesson. 2. Lesson of highest/lowest recalled mood.	1. Classroom protocol. 2. Interview protocol.
4. What relationships existed between supportive instructional behaviors and recalled mood for lessons where supportive instructional behaviors were ranked highest and lowest?	1. Rankings of SIB's for each lesson. 2. Lesson of highest/lowest recalled mood.	1. Classroom protocol. 2. Interview protocol.
5. Did shifts of mood occur during the observed lessons? If they did, what patterns of supportive instructional behaviors occurred before, during, and after the shifts of mood?	1. Teacher verification that mood shift occurred. 2. Descriptive information from from lesson. 3. Rankings of SIB's for each lesson.	1. Interview protocol. 2. Classroom protocol. 3. Mood checklist.
6. What were the relationships among supportive instructional behaviors during the lessons taught by each teacher?	1. Rankings of SIB's for each lesson.	1. Classroom protocol.

the interview, each person was asked to describe a plaster statue in order to give them a very basic idea of the process of description.

Second, each person was given a copy of the training manual for ethnographers, used by the Laboratory (see Dasho, et al., 1975), and was told to acquaint himself with the types of procedures necessary for descriptive analysis. The participants were cautioned that perfect descriptions were not going to be required of them in the pre-assessment phase. What the staff was looking for was accuracy of description and extensiveness of description.

Third, each person did an observation in one of the classrooms of the research team's teachers. These observations were recorded by the observers and typed in usual fashion, into a classroom protocol. The protocols were then sent to the teachers on the research team to review for accuracy and substantiated judgment. The teachers were asked to rank the observers according to their perceived competence. On the basis of this ranking, three persons were selected to undergo ethnographic training.

Training

The researcher and trainer of the research team created a limited series of training sessions adapted from the training process they had undergone at Far West Laboratory. The training sessions included viewing three ten-minute segments of each of two video-taped teaching episodes. The first video-tape was of a teacher and child engaged in tutorial session. The second video-tape portrayed a teacher teaching four recalcitrant children. The observers viewed succeeding five-minute segments of each tape for a total viewing time for each tape of fifteen minutes. At the end of each five minute segment the tape was stopped and each observer would complete their notes and, in turn, report what they had observed. The researcher and trainer provided the standard against

which the accuracy of the observations were judged. The second tape was considerably more complex (more actors, longer viewing time, rapidly paced events) than the first tape.

When they were prepared, a reliability check was held with the three trainees and the researcher. Together they observed a lesson taught in the classroom of one of the research team's teachers. Protocols were prepared representing a twenty-minute classroom observation. Two five-minute segments were randomly selected from the protocols and the researcher's protocol was the standard against which the observers' protocols were assessed. Tables 8 and 9 list the separate classroom events for each five-minute segment and shows the agreement of the observers with the events noted by the researcher. The reliability quotients for the two observations for each observer are listed in Table 7.

Table 7. Reliability coefficients for ethnographers during training.

	Observer 1	Observer 2	Observer 3
time segment			
8:35-8:40	.74	.74	.70
8:45-8:50	.66	.69	.66
Average Reliability	.70	.72	.68

Training was accomplished in approximately twelve hours of intensive work.

Table 8. Reliability Check for Observers at Conclusion of Training: First Five Minute Segment

Selected Events	Time	Incidents from Researcher's Protocol			Observer Agreement		
		Description of Action Occurring	Additional Description	Direct Quotes	Observer 1	Observer 2	Observer 3
1.	8:36	Teacher seated at desk	Back to class Sitting side-saddle in chair Elbows on desk and chair Legs crossed Black & white gingham shirt Kakhi pants		/	/	/
2.						/	
3.			Comfortably			/	
4.		Collecting lunch money, notes, and doing house-keeping chores			/	/	/
5.		Calls reading groups up to the desks	Well oiled routine				/
6.				Uh, Corey, Mendy, Heidi, Lynette, come up!	/	/	/
7.			Loud, friendly, business-like				
8.		Children come from different parts of the room and stand in a rough semi-circle near the teacher.			/		
9.		Teacher looks at them and asks them questions too soft to hear.			/	/	/
10.			Said in response to child who wondered why he was there	I just wanted to be sure if anyone had any notes	/		/
11.				Sheila, and Kelley	/	/	/
12.				Have you any quarters, any notes?	/	/	/
13.		More kids come up and stand in front of her.		Kelley, Robert?	/	/	/

Continued. . .

Table 8. Reliability Check for Observers at Conclusion of Training:
First Five Minute Segment
(Continued)

Selected Events	Time	Incidents from Researcher's Protocol			Observer Agreement		
		Description of Action Occurring	Additional Description	Direct Quotes	Observer 1	Observer 2	Observer 3
14.			Four kids are in front of her-- A girl is directly in front of the teacher. She has a black and white checkered dress on and wears her hair in two pony tails.	Any notes, any book orders?	/	/	/
15.		The girl hands the teacher a note.			/	/	/
16.				Massachusetts! A long weekend, eh.			/
17.				"Please let us know if any work will be missed?"	/		/
18.				Oh, we gotta make sure you have some work!	/	/	
19.			This is said in a friendly manner, with a loud voice, joking, emphasizing in a kidding way the "work" aspect.		/	/	/
20.		The girl is standing there, hands clasped behind her, and she is swaying.	She seems shy.			/	
21.		The teacher keeps the note. The children move back and another group is called up.			/	/	/
22.		Looks over this group to class.		Corey do your own work, please.	/	/	/
23.	8:41		The class is into a work pattern.		/	/	/
				TOTAL	17	17	16

Table 9. Reliability Check for Observers at Conclusion of Training: Second Five Minute Segment

Selected Event	Time	Selected Events from Researchers Protocol			Observer Agreement		
		Description of Action Occurring	Additional Description	Direct Quotes	Observer 1	Observer 2	Observer 3
1.	8:45			Have you got your phonics done?	X	X	X
2.				Look kids, get your group quiet!	—	—	—
3.		Jeff stops and looks at teacher.	He stares.	What are you doing on reading? Getting ready for play?	X	X	X
4.				Matthew, work at my desk.	X	X	X
5.			Direct, straight, even tone		X	X	X
6.		Matthew immediately picks things up and goes to the teacher's table.			X	X	X
7.				Okay, this story is about what?	—	X	X
8.			Voice changes to more enthusiasm.		—	—	—
9.		Kids offer answers.			—	—	—
10.		Teacher scans to student teacher's group.	Seems very concerned.		—	X	X
11.		Kids continue to answer.	Unsure if teacher hears answer, she is expressionless.		—	—	—
12.				What did the shirt look this morning? If you were the sister would you be happy?	X	X	X
13.				It was muddy.	X	—	—

Continued. . .

Table 9. Reliability Check for Observers at Conclusion of Training:
Second Five Minute Segment
(Continued)

Selected Event	Time	Selected Events from Researchers Protocol			Observer Agreement		
		Description of Action Occurring	Additional Description	Direct Quotes	Observer 1	Observer 2	Observer 3
14.		Teacher looks to another group.		All right! That group let's get quiet. No more horsing around.	X	X	X
15.			Voice is sharper, louder--teacher appears mitted.		X	X	X
16.		Asks boy sitting to her left to read.	Leans forward, watches him with her eyes.	There!	X	X	—
17.		Boy moves marker down the page as he reads.			—	X	—
18.		Teacher nods at his correct responses.			—	—	—
19.		Points with left hand to his error.		No. No!	X	X	X
20.		Says this to the group.		How does that sound? What is that word? How was it with the shirt?	X	X	X
21.		Tries to get the group to feel the frustration of mother having done the shirt three times.			—	X	X
22.				I've got a little boy, Tom. How would I feel?	X	X	X
23.		Several kids answer.		Well, you'd be mad.	X	—	—
24.				Now you read it with emphasis. You can do it.	X	X	X
25.		Another boy is trying to get into the bathroom door.		Just go on.	X	—	X
26.		The boy continues to read.			X	X	X
27.				Is that how you'd say it?	X	X	X
28.			Noise level = 1		—	X	X
29.	8:50		Teacher sitting now with her hands resting on her thighs her voice is louder.		X	X	X
				TOTAL	19	20	19

Data Collection in Nine Classrooms

Prior to data collection, a dry run of the collection procedures was carried out in the classrooms of the V.I.P. teachers. The purpose of this dry run was to clarify data collection procedures and to determine the utility of the design. No data analysis was carried out on the information received in the dry run.

Data collection began immediately after the observers were trained and the dry run completed. Each observer spent four days in each of three teachers' classroom. One observer covered the three urban classrooms, one observer covered three suburban classrooms, and one observer covered the three rural classrooms. The first day was a day of acclimation--classroom protocols were produced for this first day of observation and teachers completed the mood checklists. No interviews were held for the day of acclimation. The second, third, and fourth days of observation were days of data collection. Observations in the classrooms ran from May 15 until June 5. Figure 6 shows the formal observations of each observer in each of the classrooms. The observers remained in the classroom for a full day except for times when they left the room to tape their observational notes. As has been noted, formal observations were carried out during each teachers' reading lesson and during the "most difficult time" during the day. The observers focussed on describing the interaction of the teacher with the children she was instructing. If a teacher worked with a series of individual children, then the observers described those interactions. If the teacher worked with a group of children, the observer decribed those interactions. And if the observer worked with the entire class, those events were described. Despite the narrow focus occasionally

Figure 6. Observation schedule for each teacher

Teacher	May													June		
	15	16	17	18	19	22	23	24	25	26	29	30	31	1	2	5
F			1				1		1							
L						1		1								1
M													1	1	1	
G	2							2					2			
I						2				2		2				
O						2			2					2		
H	3					3			3							
J							3			3				3		
N			3				3					3				

Observer 1 (Urban)
Observer 2 (Suburban)
Observer 3 (Rural)

demanded by the teacher working with a small group of children, the observers scanned the room at large at moments during their observations. Their role was somewhat akin to a playwrite--they were to script the drama that unfolded before them. Prior to each lesson, or time period, the participant teachers completed a mood checklist and at the conclusion of the day, the observer's interview with the teacher was held. Tapes were submitted to the project staff daily and protocols were typed. Figure 7 shows the time line for the study through the end of the observational period.

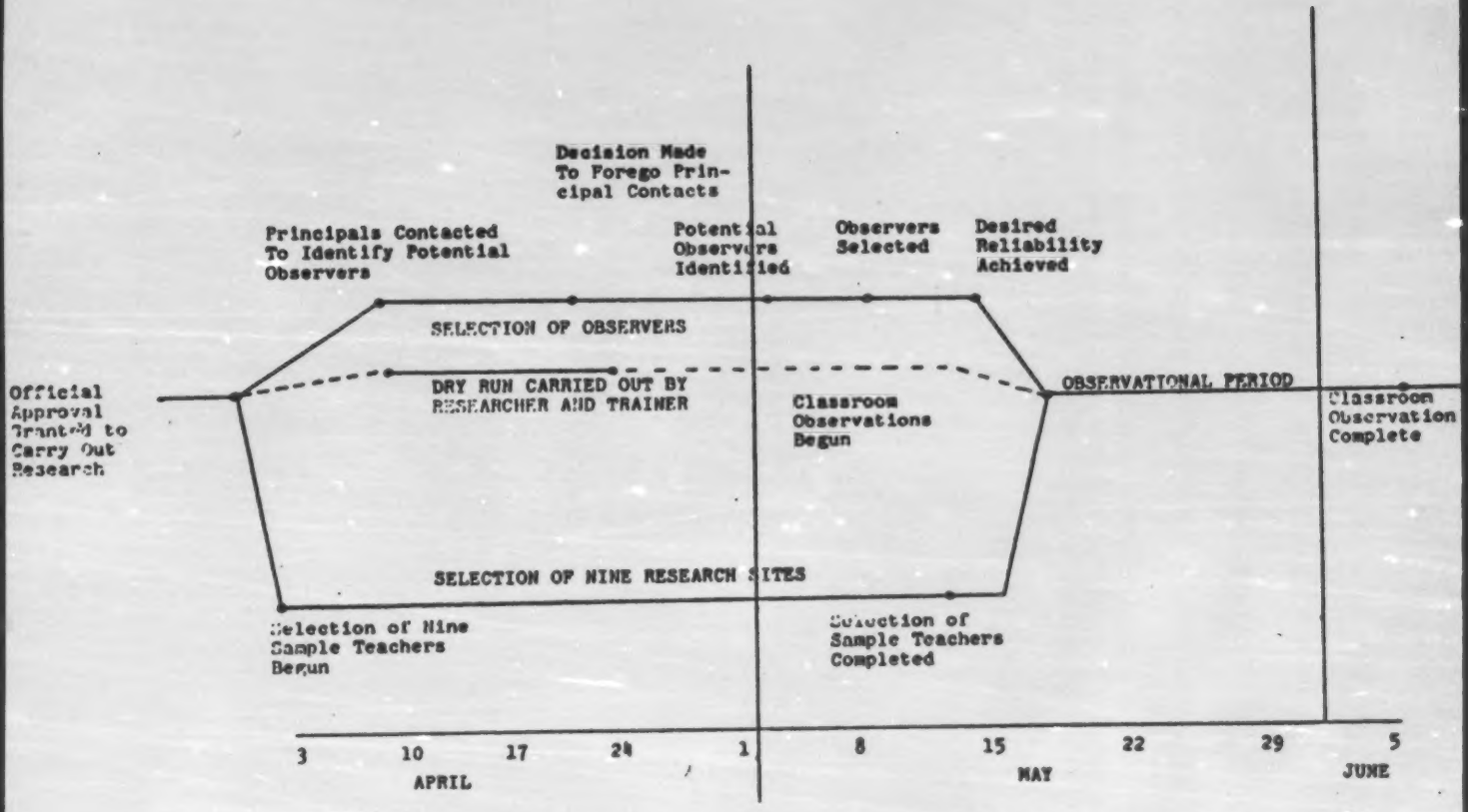
Data Reduction

In total, the classroom and interview protocols and mood checklists numbered over one thousand pages of data for the fifty-four lessons that were observed. The first task of data analysis was to assemble ten complete data sets, one for each of the eight members of the data analysis team and two extra sets. The data analysis team was composed of the five members of the Vermont Interactive Project Team (three teachers, one trainer, one researcher), one undergraduate research assistant (an undergraduate with a self-designed program major in educational research), and two of the three ethnographer-observers. This team worked together the month of July reducing the one thousand pages of data into the required data sets.

The section of this report that follows will explicate this process of data reduction and analysis. One part of this process merits special note.

The inclusion of the ethnographers on the analysis team was invaluable. Despite the extensive description of classroom lessons and interviews noted in the protocols, words at times simply cannot capture the meaning and gesture of every interaction scripted in the protocols. Their first-hand information

Figure 7. Time line for recruitment and selection of observers and research sample, and observational period



concerning six of the nine teachers was invaluable in rendering the judgments necessitated in interpretation of the protocols as accurate as possible.

Data Reduction Procedures Leading to the Rankings of Nine Supportive Instructional Behaviors for Each Classroom Lesson Protocol

Once the data sets had been assembled, the first step in this process was to train the analysis team to reliability in identifying the nine supportive instructional behaviors.

To do this, sample lesson protocols were selected at random. The team, functioning in groups of two, analyzed these sample protocols to identify appropriate supportive instructional behaviors. When the researcher thought it appropriate, a reliability check was conducted. A sample classroom protocol was selected and appropriate supportive instructional behaviors were noted by the researcher. Appendix D contains this sample protocol. Each member of the team working independently reviewed this sample protocol and identified the supportive instructional behaviors contained therein. Then a reliability check was run on the team's identifications.

Of the twenty-eight examples of supportive instructional behavior noted in the protocol, sixteen were correctly noted by seven of the eight team members. After discussion, complete agreement was reached on twenty-six of the twenty-eight examples of all team members. There was lack of agreement for two items by one team member. After discussion, reliability in identification of SIB's reached 100% for all but two items where reliability was at the .86 level.

Each team member then was assigned one SIB for purposes of coding each protocol. Because there were nine SIB's but only eight team members, one team member agreed to code the protocols for two SIB's. Team members read each

protocol for each teacher and coded it by identifying each time their SIB occurred. In addition, whenever the opportunity arose for a teacher to use the SIB under investigation but the teacher did not utilize it or behaved negatively in relation to it, this instance was coded as a negative occurrence of the SIB. An example of a negative occurrence for the SIB "accepting" is:

> The teacher turns to Jimmy and says loudly, "I don't want to hear from you now!"

In this example, had the teacher been accepting of Jimmy, she would have deomcnstrated this in her behavior. Instead, she responded negatively by reprimanding him.

The results of coding the protocols for each SIB appear as Table 15 in Chapter Five. In addition, there were some procedures for coding the protocols which were used only for a given SIB. These appear as Appendix E along with a restatement of each of the SIB's.

In order to achieve a ranking of each lesson for each SIB, each team member split their fifty-four protocols into sets of sixes. That is, they arranged their protocols by teacher. Then, keeping their own SIB in mind, they arranged the protocols in order from the protocol that had the least instances of the SIB under investigation to the protocol that had the most instances. These protocols were then ranked 1 (lowest) to 6 (highest). Each lesson was ranked and no lesson had the same ranking.

The rankings for all teachers appears on Table 14 in Chapter Five. Because all nine SIB's were analyzed by the team, the ranking of each lesson for the relative presence of each SIB had been acheived. Table 10 gives a sample of SIB rankings for Teacher I. These charts were generated for each

teacher and appear in their individual case studies (see Chapter Four). When this was accomplished, the first data set had been established.

Table 10. Forced rankings for each SIB across six lessons taught by Teacher I

SIB's	Date 5/23		Date 5/26		Date 5/30	
	R	DT	R	DT	R	DT
1. Accepting	3	6	1	5	4	2
2. Attending	6	5	4	2	3	1
3. Conviviality	4	6	3	5	2	1
4. Cooperating	4	5	1	3	6	2
5. Engagement	1	5	3	4	6	2
6. Monitor	2	5	6	4	3	1
7. Pacing	6	4	2	3	1	5
8. Pro Self-Sufficiency	6	2	1	4	3	5
9. Optimism	1	5	3	6	2	4

Scoring of the Mood Checklist

The mood checklist was an adaptation of the mood adjective checklist developed by Nowlis (1965). The team reduced the number of adjectives on the original checklist and added some terms thought to be more applicable to the world of teachers (see Figure 4 for example).

The checklist contains a number of adjectives both positive and negative in their connotations. In order to determine a general mood score for each checklist (and therefore each lesson), these adjectives had to be grouped and their scores adjusted. The three teachers of the research team determined

which adjectives contributed to a positive teaching milieu and those that contributed to a negative teaching milieu. Their decisions are reflected in the following lists:

Mood Adjectives Contributing To a Positive Teaching Milieu	Mood Adjectives Contributing To a Negative Milieu
pleased	angry
witty	drowsy
serious	jittery
confident	sad
gentle	tense
carefree	insecure
industrious	fatigued
affectionate	pre-occupied
refreshed	regretful
playful	overwhelmed
calm	frustrated

Scoring was accomplished in the following manner. For the positive adjectives, the intensity indicated by the teacher (3 = strongly, 2 = somewhat, 1 = not at all) were summed without change. For the negative adjectives, the scoring was reversed ("strongly" was transformed to a score of 1, "somewhat" remained a score of 2, "not at all" was transformed to a score of 3). Therefore, for the negative adjectives, a strong presence was given a low score and a low presence was given a high score. In this way, the sum of the scores indicated a rating of mood with consistency.

A general mood rating for each checklist was calculated by averaging the sum of the scores for each checklist. The general mood rating was a

quantitative measurement indicative of the teacher's mood at the beginning of each lesson. An average general mood score for each teacher was calculated by averaging the general mood scores for all six lessons taught by each teacher.

Data Analysis

Specific analysis procedures will now be explained in relationship to each of the specific questions asked in this study.

Question 1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?

To complete this analysis, the distribution of SIB ranking for the lessons of highest and lowest general mood scores were examined and related to the context of the lessons.

Question 2. What relationships existed between SIB's and general mood scores when SIB's were ranked highest and lowest?

A table was generated which listed each SIB and the lesson it was ranked highest and lowest. The general mood score for these lessons was indicated in this table. The table also indicated whether the general mood score was greater or less than the average general mood across all six lessons for each teacher. Table 11 is one such table. From examining this table, the percentage of SIB's ranked highest when the general mood score was greater than the average could be determined. The reverse was also true. This analysis gave some indication of the relationship between SIB's and general mood for each teacher and across each teacher. In terms of this study, this information was very important.

Table 11

Comparison of highest and lowest Supportive Instructional Behavior ranking (6 and 1) to General Mood Score for the lesson during which the rank occurred

Comparison With Average General Mood for all Lessons	General Mood Score for Given Lesson	Lesson Ranked Low	Supportive Instructional Behavior	Lesson Ranked High	General Mood Score For Given Lesson	Comparison With Average General Mood For all Lessons
greater than	2.45	R5/26	Acceptance	DT 5/23	2.10	less than
less than	2.23	DT 5/30	Attending	R5/23	2.41	greater than
less than	2.23	DT 5/30	Conviviality	DT 5/23	2.41	greater than
greater than	2.45	R5/26	Cooperation	R 5/30	2.32	greater than
less than	2.23	DT 5/30	Engagement	R 5/26	2.45	greater than
greater than	2.32	R5/30	Monitoring	R 5/23	2.41	greater than
greater than	2.45	RT/26	Pacing	R 5/23	2.41	greater than
greater than	2.41	R5/23	Promoting Self-Suff	DT 5/26	2.45	greater than
greater than	2.41	R5/23	Optimism	R 5/30	2.32	greater than

Question 3. What were the relationships existing between supportive instructional behaviors and recalled mood for lessons where recalled mood was highest and lowest?

This analysis was carried out by determing what the rankings of SIB's were for lessons of highest and lowest recalled mood. The highest and lowest rankings were then compared to discover existing relationships.

Question 4. What relationships existed between SIB's and recalled mood when SIB's were ranked highest and lowest?

This analysis determined whether lessons of recalled mood received highest or lowest SIB rankings. By comparing results of Questions 4 and 5, the strength of the relationship between SIB's and general mood or recalled mood could be determined.

Question 5. Did shifts of mood occur during the observed lessons? If so, what patters of supportive instructional behaviors occurred before, during, and after the shifts of mood?

There were two criteria for determing mood shift. The first criteria was obvious: if the teacher indicated in an interview that a mood shift had occurred, then it was assumed to have happened.

Question 6. What were the relationships among supportive instructional behaviors during the lessons taught by each teacher?

To complete this analysis, three tables were generated. Using the rankings of supportive instructional behaviors for the six lessons taught by each teacher (see Table 11), a table was formed which compared SIB's when it was ranked high (5,6) and low (1,2) for each SIB when it was ranked highest (6) and lowest (1). (See Table 12.) This provided information about the distribution of SIB's for specific rankings of each SIB.

Table 12.

Comparison of Supportive Instructional Behaviors when a given SIB was ranked highest (6) and lowest (1) (Teacher I)

SIB's Ranked High When Given SIB was Ranked Lowest	RIB's ranked Low When Given SIB was Ranked Lowest	Lessons Given When SIB was Ranked Lowest	Supportive Instructional Behavior	Lessons Given When SIB was Ranked Highest	SIB's Ranked High When Given SIB was Ranked Highest	SIB's Ranked Low When Given SIB was Ranked Highest
Monitoring	Cooperation Pacing Promoting Self-Suff	1 5/26 R/2	ACCEPTANCE	6 5/23 DT/1	Attending Conviviality Cooperation Engagement Monitoring Optimism	Promoting Self-Suff.
Pacing Promoting Self-Suff.	Accepting Conviviality Cooperation Engagement	1 5/30 DT/3	ATTENDING	6 5/23 R/1	Pacing Promoting Self-Suff	Engagement Monitoring Optimism
Pacing Promoting Self-Suff.	Accepting Attending Cooperation Engagement Monitoring	1 5/30 DT/3	CONVIVIALITY	6 5/23 DT/1	Accepting Attending Cooperation Engagement Monitoring Optimism	Promoting Self-Suff.
Monitoring	Accepting Pacing Promoting Self-Suff.	1 5/26 R/2	COOPERATION	6 5/30 R/3	Engagement	Conviviality Pacing Optimism
	Monitoring Optimism	1 5/23 R/1	ENGAGEMENT	6 5/30 R/3	Cooperation	Conviviality Pacing Optimism
Pacing Promoting Self-Suff.	Accepting Attending Conviviality Cooperation Engagement	1 5/30 DT/3	MONITORING	6 5/26 R/2		Accepting Cooperation Pacing Promoting Self-Suff.
Cooperation Engagement	Conviviality Optimism	1 5/30 R/3	PACING	6 5/23 R/1	Attending Promoting Self-Suff.	Engagement Monitoring
	Acceptance Cooperation Pacing	1 5/26 R/2	PROMOTING SELF-SUFF.	6 5/23 R/1	Attending Pacing	Engagement Monitoring Optimism
Attending Pacing Promoting Self-Suff.	Engagement Monitoring	1 5/23 R/1	OPTIMISM	6 5/26 DT/2	Accepting Conviviality	Attending

In addition, it was important to note which SIB's varied in concert. That is, for a given SIB, when it was ranked high, other SIB's were also ranked high and low; and, when the given SIB was ranked low, the same other SIB's ranked low and high. This information was important in that it related the connectedness of SIB's, despite their variation, for a given teacher.

These relationships were termed "direct" and "indirect" relationships. Table 13 follows from Table 12 and indicates the direct and indirect relationships:

> Direct Relationship: A given SIB is said to be in direct relationship with another SIB if the other SIB is high when the given SIB is highest, and low when the given SIB is lowest.
>
> Indirect Relationship: A given SIB is said to be in indirect relationship with another SIB if the other SIB is high when the given SIB is lowest, and low when the given SIB is highest.

The relationships among SIB's were then examined by relating them to the context of the teacher's lessons, the context being contained in the lesson and interview protocols.

However, there were times when the observer felt a mood shift had occurred when the teacher was not aware of its occurrence. This latter criteria emerged during the data reduction phase of the study. From studying the protocols, the team felt such a criteria was warranted. Situations arose in the protocols where children not directly involved in interactions with the teacher reaped the consequences of a teacher's behavior that affected everyone in the room, including those people who had no responsibility for the event. This meant that children might suddenly be permitted to go to the playground because the teacher had decided to reward another group of children for good behavior. Or, it could mean a child might have to put his head down on his desk and

Table 13. Direct and indirect relationships for Supportive Instructional Behaviors (Teacher I)

Supportive Instructional Behavior	SIB's in Direct Relationship	SIB's in Indirect Relationship
1. Acceptance	Cooperation	
2. Attending		
3. Conviviality	Accepting Attending Cooperation Engagement Monitoring	Promoting Self-Suff
4. Cooperation		
5. Engagement		
6. Monitoring		Pacing Promoting Self-Suff
7. Pacing		Engagement
8. Promoting Self-Sufficiency	Pacing	
9. Optimism		Attending

remain quiet for five minutes because other children were misbehaving. When events like this occurred, the team was forced to determine whether or not a mood shift had occurred.

If a mood shift occurred, regardless of the criteria, then the time of the mood shift was identified in the classroom protocol and the variation of SIB's were noted before, during, and after the mood shift.

This analysis, when related to the context of the lessons, gave valuable information regarding the precipitating behaviors for shifts of mood for certain teachers. It also allowed the relationship of mood shift to use of SIB's to be made.

CHAPTER FOUR

THE CASE STUDIES OF NINE TEACHERS

For ease of binding, the case studies for the nine teachers in the sample appear as a separate volume. Please refer to Volume 2: Nine Case Studies.

CHAPTER FIVE

COMPARISON OF ANALYSES FOR ALL TEACHERS

This chapter serves to present a discussion of the comparison of all nine teachers in relation to the six questions which served as the focus of this study. In the previous chapter, case studies for each teacher were presented in which data for each were displayed and discussed. This discussion makes use of these data in combined form. For this reason, it will be helpful first to present the combined data. Then, utilizing these data, each research question will be discussed in turn.

Comparison of Data for All Teachers and All Lessons

Three tables serve to display analyzed data for the nine teachers across all six observations. It will be recalled that two data sources served to provide information. The first was the narrative protocols for each lesson taught by each teacher; as discussed in Chapter Three, these were coded for evidence of occurrences of the nine Supportive Instructional Behaviors (SIBs). The second data set consisted of the Mood Adjective Checklist (see Figure 4) which was filled out by each teacher for each lesson. This procedure also is described in Chapter Three. Analyzed data will be presented below in these two sets.

Supportive Instructional Behaviors

As discussed earlier, a ranking of the lessons for each teacher for each SIB was achieved. These rankings appear on Table 14. Each SIB appears across the table, and beneath each is an appropriate column for each of the six lessons during which teachers were observed. Events labeled "R" refer to reading lessons, "D.T." to the most difficult time for each teacher. Numbers

Table 14. SIB rankings for each lesson taught by each teacher

Supportive Instructional Behavior Lesson	Acceptance						Attending						Cooperation						Conviviality						Engagement						Monitoring						Optimism						Pacing						Prompting Self-Sufficiency					
	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3	R_1	DT_1	R_2	DT_2	R_3	DT_3
Teacher																																																			
F	5	3	4	6	2	1	2	1	3	5	6	4	6	3	5	4	2	1	4	5	6	3	2	1	5	2	4	6	3	1	3	2	4	6	5	1	4	5	6	3	2	1	2	4	5	6	3	1	4	2	3	6	5	1
G	4	2	3	6	1	5	4	1	3	5	2	6	2	3	4	6	1	5	1	2	3	5	4	6	2	1	6	3	5	4	5	2	6	3	4	1	4	2	1	5	3	6	2	1	4	5	6	3	3	1	2	4	5	6
H	6	1	4	3	5	2	6	4	5	2	3	1	2	3	1	5	6	4	5	2	4	3	6	1	4	1	2	3	6	5	6	4	3	5	2	1	3	2	5	6	4	1	6	5	3	4	2	1	2	4	3	6	5	1
I	3	6	1	5	4	2	6	5	4	2	3	1	4	5	1	3	6	2	4	6	3	5	2	1	1	5	3	4	6	2	2	5	6	4	3	1	1	5	3	6	2	4	6	4	2	3	1	5	6	2	1	4	3	5
J	4	2	5	1	3	6	6	2	5	1	3	4	3	1	2	4	5	6	5	2	6	1	4	3	5	1	4	3	2	6	4	5	3	1	2	6	2	3	6	1	4	5	3	4	6	2	1	5	1	3	4	5	2	6
L	2	5	6	3	4	1	6	1	3	5	4	2	3	6	2	1	4	5	2	4	6	3	2	1	3	6	4	2	1	5	5	3	4	2	6	1	2	3	5	6	2	1	1	4	3	2	6	5	4	6	3	2	1	5
M	3	5	1	2	4	6	6	5	3	2	1	4	2	3	1	4	5	6	2	1	4	3	5	6	2	5	1	4	2	6	5	1	6	3	4	2	6	1	5	4	2	3	3	1	4	2	5	6	3	6	1	2	5	4
N	4	1	6	2	3	5	6	4	5	2	3	1	5	4	3	1	2	6	4	3	2	5	6	1	4	3	1	5	2	6	6	2	4	3	5	1	6	2	4	3	5	1	5	1	4	3	6	2	6	2	4	3	5	1
O	5	2	4	1	6	3	6	4	2	1	5	3	5	1	6	2	4	3	3	2	6	1	5	4	6	1	2	5	4	3	6	5	1	3	2	4	3	2	4	1	5	6	6	5	4	2	1	3	1	4	6	3	5	2

record the sequence of lessons observed. Teachers' identifying letters appear in the first column, and the intersecting cells represent the ranking given each lesson. As can be seen, rankings of from 1 (lowest) to 6 (highest) appear for each SIB. These were derived from information on the raw ranking scores (see Table 15). Thus, for Teacher F, the lesson receiving the highest ranking (6) was DT-2 (the second most-difficult-time observed for Teacher F), and the lesson receiving the lowest ranking (1) was DT-3, or the third most-difficult-time observed.

The raw scores appear on Table 15. As with the previous table, data are displayed by SIB and by each lesson. In this instance, the number which appears represents the number of occurrences of an SIB--both positive and negative--for a given lesson. It will be recalled from Chapter Three that positive occurrences record the number of times an SIB actually was observed for a teacher, while negative occurrences refer to the instances when opportunity was present for a teacher to exhibit the SIB but either she did not do so or exhibited a negative behavior instead. Thus, for Teacher F, the highest number of positive occurrences of "acceptance" was for DT-2 (3 occurrences), whereas the highest number of negative occurrences was recorded for DT-3 (11 occurrences). These raw scores are reflected on Table 14 as the highest and lowest rankings.

It should be noted that, in the instances when a tie raw score appeared for an SIB, the coder was asked to perform a forced ranking. Thus, for example, for Teacher F SIB "Promoting Self-sufficiency" was ranked highest on DT-2 (Table 14) on the basis of a choice made by the coder between DT-2 and DT-3 which both received raw scores of 3 (see Table 15).

General Mood Scores

As discussed in Chapter Three, general mood scores were derived for each

Table 15. SIB raw scores for each lesson taught by each teacher

Teachers	Positive/ Negative Scorings	Acceptance S_1 PT_1 S_2 PT_2 S_3 PT_3	Attending S_1 PT_1 S_2 PT_2 S_3 PT_3	Contriality S_1 PT_1 S_2 PT_2 S_3 PT_3	Cooperation S_1 PT_1 S_2 PT_2 S_3 PT_3	Engagement S_1 PT_1 S_2 PT_2 S_3 PT_3	Monitoring S_1 PT_1 S_2 PT_2 S_3 PT_3	Options S_1 PT_1 S_2 PT_2 S_3 PT_3	Pacing S_1 PT_1 S_2 PT_2 S_3 PT_3	Promoting Self-Sufficiency S_1 PT_1 S_2 PT_2 S_3 PT_3
F	+	1 5 2 3 0 0	0 0 0 4 0 2	5 3 4 1 2 3	2 0 0 0 0 0	9 9 13 16 6 2	28 9 41 49 48 7	1 0 0 3 0 1	2 0 0 4 0 1	1 1 0 2 3 0
	−	7 8 6 4 3 11	17 3 0 0 0 0	4 10 3 0 3 14	2 2 2 5 7 18	10 17 13 6 17 23		0 0 0 0 0 0	*86 9 0 10 23 6	0 0 0 0 0 0
B	+	3 3 6 6 1 6	0 0 0 10 0 14	3 1 3 0 2 10	1 3 0 12 0 10	6 2 6 5 7 6	23 0 37 11 29 6	0 0 1 1 0 1	2 1 1 4 0 0	1 2 1 4 0 0
	−	6 5 7 5 11 6	0 0 0 0 0 0	11 3 4 4 5 10	1 2 3 4 5 6	6 2 6 5 6 6		0 0 1 1 2 1	* 3 0 20 11 13 22	0 0 0 0 0 0
M	+	10 4 6 6 6 6	13 7 8 6 6 6	14 8 11 11 11 4	2 3 4 13 11 8	4 2 4 4 2 1	26 27 17 28 7 11	1 0 1 1 0 0	2 0 0 0 1 1	2 4 4 5 0 1
	−	7 4 5 4 5 7	0 0 0 0 0 0	0 0 0 0 0 0	0 0 0 0 0 0	2 3 4 3 3 1		0 0 0 0 0 0	* 0 0 0 15 6 0	0 0 0 0 0 0
I	+	1 7 1 5 4 1	8 8 4 0 1 0	10 0 3 13 12 3	6 10 1 2 8 7	7 13 5 11 16 4	24 54 50 51 45 11	0 0 0 2 2 1	5 2 0 0 1 5	8 0 0 1 0 7
	−	4 7 6 5 5 4	0 0 0 0 0 0	0 1 0 0 0 0	0 0 0 0 0 0	3 3 3 6 1 0		0 0 0 0 0 0	*22 22 32 36 25 6	0 0 0 0 0 0
J	+	7 5 7 2 5 10	7 0 1 0 3 0	5 2 7 0 5 11	0 0 0 4 0 11	10 5 14 8 8 15	24 46 23 18 20 69	0 0 1 1 1 7	3 4 4 2 1 4	1 6 5 5 2 11
	−	4 3 3 4 3 12	0 0 0 0 0 0	0 7 0 0 0 0	0 0 0 0 0 0	7 10 10 5 6 5		0 0 1 0 1 1	* 0 8 17 5 13 16	0 3 2 0 0 0
L	+	4 5 8 4 4 3	13 5 8 10 8 7	8 7 16 10 13 11	0 15 0 0 1 11	4 4 8 2 8 5	27 10 18 9 21 9	0 0 1 0 1 1	0 1 0 0 2 0	6 10 6 8 1 7
	−	6 5 5 4 4 12	0 0 0 0 0 0	11 7 6 10 7 22	0 17 0 15 0 0	13 6 6 6 6 6		0 0 1 0 1 1	* 4 17 6 12 13 10	0 0 0 0 0 0
N	+	3 5 3 1 5 4	7 5 3 1 3 4	8 5 5 2 11 10	0 0 0 3 6 9	5 4 1 4 4 6	25 9 27 8 17 7	0 0 1 1 0 0	0 0 0 0 0 1	5 0 7 1 2 5 4
	−	2 3 3 3 4 1	0 0 0 0 0 0	4 3 5 2 2 5	7 0 11 0 0 0	7 3 3 2 4 5		0 0 1 1 1 0	*17 7 12 6 23 10	0 0 0 0 0 0
H	+	10 6 10 6 7 9	10 8 8 6 7 8	10 15 10 7 10 6	13 9 9 5 6 10	12 11 6 12 7 11	44 11 28 15 21 7	1 0 0 0 1 1	1 0 1 1 0 0	5 0 0 1 1 0
	−	9 7 9 6 7 9	10 0 0 0 0 0	11 3 11 7 10 7	11 0 0 5 6 10	13 11 6 12 7 11		1 0 0 0 2 1	*29 13 21 11 16 15	5 0 0 1 1 0
O	+	5 1 3 1 4 1	6 4 6 1 6 3	10 2 9 6 7 4	10 0 28 1 6 8	10 2 2 6 3 1	20 22 6 3 6 7	0 0 0 1 1 0	0 0 1 0 1 1	1 0 0 0 0 1
	−	3 1 3 1 4 1	6 0 0 0 0 0	10 2 2 6 3 4	10 0 0 7 0 0	10 2 2 6 3 1		0 0 0 1 1 0	*40 16 8 4 2 1	1 0 0 0 0 0

* represents "flavor" categories (see Appendix E, "Pacing")

lesson for each teacher by calculating teachers' responses on the Mood Adjective Checklist (see Figure 4 for example). These appear in combined form on Table 16.

Table 16. General mood scores for each lesson taught by each teacher

	Lesson						
	R_1	DT_1	R_2	DT_2	R_3	DT_3	Average
Teacher							
F	2.36	2.23	2.23	2.23	2.59	2.23	2.31
G	2.32	2.23	2.45	2.27	2.23	2.55	2.34
H	2.68	2.45	2.36	2.50	2.77	2.64	2.57
I	2.41	2.10	2.45	2.14	2.32	2.23	2.28
J	2.86	2.68	2.50	2.32	2.41	2.36	2.52
L	2.91	2.82	2.91	2.91	2.77	2.82	2.86
M	2.73	1.95	2.23	1.64	2.55	2.36	2.24
N	2.64	2.73	2.86	2.68	2.68	2.68	2.71
O	2.27	2.27	2.50	2.27	2.41	2.23	2.33

Each lesson appears across the table, with the mood score for that lesson recorded in the appropriate space below. In addition, the Average Mood Score for all six lessons appears in the final column. Thus, for Teacher F, an Average Mood Score of 2.31 was computed by averaging across the mood scores which appear for each of the six lessons. The highest mood score registered by Teacher F was 2.59 on event R-3, and the lowest was 2.23 for four events--DT-1, R-2, DT-2, and DT-3.

In each of the case studies for teachers which appear as Chapter Four of this report, the data represented on these three tables are discussed for that teacher. The discussion which follows considers these data for all nine

teachers in the sample and relates results to the six research questions which served as the focus for the study.

Comparison of Teachers in Relation to Research Questions

Question 1. What were the relationships existing between supportive instructional behaviors and general mood scores for lessons where the general mood score was highest and lowest for the teacher?

There were no consistent relationships between SIBs and general mood scores for the lessons where general mood was highest and lowest across all teachers. This was due to the idiosyncratic nature of how each teacher dealt with her mood. For example, Teacher L seemed to impose a highly positive outlook on what occurred in her class despite the fact that at times things were happening that upset her. In the one lesson Teacher H sensed would go poorly, she changed her feeling completely by promising the children an extra recess if they finished their work early. Teacher I consciously controlled her teaching behaviors in spite of her mood. Teach O's and M's SIBs were more a function of their instructional style (children involved in multiple activities vs. teacher directed activities) despite the fact their mood scores varied considerably. Teachers G and J had more SIBs ranked low (than high) for the lesson of low mood and had more SIBs ranked high (than low) for the lesson of high mood.

A possible relationship emerged as a result of this analysis. Six teachers began their lesson taught during the most difficult time for them during the day with the mood score that was equal to or lower than their mood score recorded during their reading lessons. This was true for each pair of six lessons taught by these teachers. In this respect, it can be said that these teachers' mood seemed to be affected by the time of day they taught. Whether or not their lower mood made a difference in their instruction depended upon each teacher's response to her mood. For Teachers O, N, I and H, mood made

little difference in their instruction and therefore in their SIBs. They were aware of their moods and knew what to do in their teaching so their lower moods did not affect their instruction in any way.

Question 2. What relationships existed between SIBs and general mood scores when SIBs were ranked highest and lowest?

This question and its analysis revealed the most interesting potential relationships in this study. There seemed to be a relationship between the teachers' general mood score and their SIBs when the SIBs were ranked highest and lowest. Also, certain teachers reflected different relationships between general mood and SIBs. Table 17 shows the following results:

Table 17. Percentage of SIBs ranked highest (and lowest) for a given teacher when the general mood score for that teacher was greater (or less) than that teacher's average general mood score

	Percentage of SIBs Ranked Highest When GMS was Greater Than Average	Percentage of SIBs Ranked Lowest When GMS was Less Than Average
L	44%	67%
M	89%	78%
F	22%	100%
H	78%	33%
J	44%	67%
N	11%	67%
G	67%	78%
I	89%	33%
O	44%	78%

1. For Teachers G and M, over half their SIBs were ranked highest on days when their general mood was higher than their average, and over half their SIBs were ranked lowest on days when their general mood was less than their average general mood. These teachers were most sensitive to the relationship between their SIBs and their general mood.

2. Teachers L, F, J, N, and O's SIB was more sensitive to their days of low general mood. These teachers had a higher percentage of SIBs

ranked lowest on days when their general mood score was less than their average general mood, than they had SIBs ranked highest on days when their general mood score was greater than their average general mood.

3. Teachers H and I's SIB was more sensitive to their days of high general mood. These teachers had a higher percentage of SIBs ranked highest on days when their general mood score was greater than their average general mood, than they had SIBs ranked lowest for days when their general mood score was less than their average general mood.

The analysis also showed that the presence of certain SIBs ranked highest (or lowest) was linked with a number of teachers having a higher (or lower) general mood score when compared to their average general mood. Table 18, for example, reveals:

Table 18. Percentage of teachers whose SIBs were ranked highest (or lowest) when their general mood was greater (or less) than their average general mood

	Percentage of Teachers whose general mood rating was greater than average when the given SIB was ranked highest	Percentage of Teachers whose general mood rating was less than average when the given SIB was ranked lowest
acceptance	44%	56%
attending	67%	67%
conviviality	67%	78%
cooperation	67%	44%
engagement	67%	78%
monitoring	44%	56%
pacing	56%	56%
promoting self-sufficiency	56%	56%
optimism	56%	56%

1. Six teachers' (67% of all teachers) general mood score was greater than their average general mood for lessons where attending, conviviality, cooperation and engagement were ranked highest.

2. Five teachers' (56% of all teachers) general mood score was greater

than their average general mood for lessons where pacing, optimism, and promoting self-sufficiency were ranked highest.

3. Seven teachers' (78% of all teachers) general mood score was less than their average general mood for lessons where conviviality and engagement were ranked lowest.

4. Six teachers' general mood score was less than their average general mood for lessons where attending was ranked lowest.

5. Five teachers' general mood score was less than their average general mood for lessons where acceptance, monitoring, pacing, promoting self-sufficiency, and optimism were ranked lowest.

6. Six SIBs (attending, conviviality, engagement, pacing, promoting self-sufficiency, optimism) were directly linked to the mood of over half the teachers in the study. For lessons where these SIBs were ranked highest, over half the teachers general mood score was better than their average general mood. For lessons where these SIBs were ranked lowest, over half the teachers general mood score was less than their average general mood.

Question 3. What were the relationships existing between SIBs and recalled mood for lessons when recalled mood was highest and lowest for the teacher?

Question 4. What relationships existed between SIBs and recalled mood when SIBs were ranked highest and lowest?

These questions were grouped together because of the fact that "recalled mood" proved to be a highly unreliable variable in this study. Seven teachers either could not recall a lesson of highest or lowest mood, or when they recalled their moods, it was recalled as the mood for a day, not for a lesson during the day. Only Teacher L, the teacher who seemed to impose a positive mood on herself and her children, had data that was relevant here. For her, Question 3 was answered by the fact that acceptance, conviviality, and optimism were ranked high for her lesson of highest recalled mood, and low for her lesson of lowest recalled mood.

This finding was consistent with the definition of mood stipulated in this research. Mood was a "reasonably unstable" trait of the person. It was predictable that a teacher's recall as to how she felt for a period of forty

minutes during a typically active day thirteen days earlier would be unreliable. The passage of time and intensity of activity that characterize most working days for teachers probably make the assessment of mood by recall an unreliable variable, especially as the time interval between event and recall of that event is increased.

Question 5. Did shifts of mood occur during the observed lessons? If so, what patterns of supportive instructional behaviors occurred before, during, and after the shifts of mood?

Seven mood shifts occurred during the study, two of which were with the same teacher. It was interesting that six mood shifts occurred during the "most difficult time" during the day for the respective teachers. Table 19 describes the mood shifts and the changes that occurred in supportive instructional behaviors. The following points are relevant to the mood shift data:

1. Six mood shifts occurred during the teachers' most difficult time during the day.
2. The mood shift for Teacher H was from a negative mood to a positive mood. She anticipated a potentially poor situation and changed it to a positive setting.
3. For all six teachers experiencing a mood shift, the mood shift occurred for lessons when their general mood score was less than their average mood score. For three of the teachers, the mood shift was for a lesson having their lowest mood scores.

It is important to note that the mood shift information revealed that the shifts occurred for lessons where the teachers were in a mood that was less than their average general mood.

Two teachers, I and N, were very aware of their moods and stated in interviews that they consciously geared their planning and instruction so as to not let their moods interfere with their teaching. For Teacher N, planning and organization was the key to keeping her class running smoothly. She knew

Table 19. Mood shifts identified in the study

Teacher	Direction of Shift	Situation	Was shift noticeable to the observer?	What happened to SIB's
L	positive to negative	Children are engaged in activities. Their engagement becomes too loud. Teacher and aide in conflict over appropriate activities. Teacher gets very angry at boys making paper airplanes.	Yes	During situation, cooperation and engagement increase but not as the teacher would like them to. Attending and accepting decrease. Lesson ends just after the shift.
M	positive to negative	Teacher upset over aide's absence. Children return noisily from gym. Teacher attempts to quiet them down. She suddenly has all children put their heads on their desks.	Yes	Little attending, acceptance, and engagement before the shift. These SIB's increase markedly when shift has ended and a pleasant atmosphere ensues.
F	positive to negative	Teacher is monitoring children's work while walking around room. Two boys are too active for her. She gets angry at one and eventually sends him from the room.	Yes	Conviviality present before and after shift. As tension builds monitoring and attending increase.
H	negative to positive	Children groan at work given at beginning of lesson. Teacher feels the same way. Teacher announces an extra recess if they get their work done and children immediately attend to task.	Yes, after the teacher gave the extra recess.	Level of engagement, accepting and conviviality increase after mood shift.
J	positive to negative	Teacher has forgotten to prepare children for a worksheet. She needs to work with a second group. She notices their uninvolvement and hurries the lesson.	Yes, but only by teacher's voice.	No SIB's changed. The teacher just spent more time telling the children to "keep busy."
O	positive to negative	A boy locks another child out of the room and then jokes about it. Teacher monitors his work.	Yes, but only by slight change in teacher's voice.	No change noticed even though teacher was "angry."
	positive to negative	Teacher is giving a spelling test. One boy talks constantly and salutes the teacher when she reminds him of the classroom rules.	No	No change noticed even though teacher was "pissed off" at the boy.

what she wanted to have happen for her children and kept her classroom convivial to aid her achievement of her instructional objectives. Teacher I related that she knew what made her angry and avoided those behaviors on her part. She removed objects from children that caused behaviors that bothered her without changing her verbal instruction. In addition, she never argued with children because that only made her angrier.

Question 6. What were the relationships among supportive instructional behaviors during the lessons taught by each teacher?

In order to assess the relationships among supportive instructional behaviors, two different analyses were carried out.

Analysis 1. Each lesson was examined for the presence of SIBs. The SIBs were ranked for each lesson. Clusters of SIBs ranked high (5,6) and low (1,2) were developed for each lesson where a given SIB ranked highest and lowest. In this way, the variation of remaining SIBs could be determined for a given SIB's highest and lowest ratings. This analysis provided information regarding the link among SIBs for each SIB at its highest and lowest ranking.

In order to make this comparison across all nine teachers, each SIB was looked at for each teacher's lesson that it was ranked highest and lowest. Then, the other SIBs ranking high and low for that given lesson were noted. Table 20 reports the distribution of SIBs ranked low when each SIB was ranked highest. Table 21 reports the distribution of SIBs ranked low when each SIB was ranked lowest. And Table 22 illustrates the distribution of SIBs ranked high when each SIB was ranked lowest. Table 23 reports the distribution of SIBs ranked high when each was high.

Table 24 collapses the above data for each SIB. The tallies of the various distributions in Tables 20, 21, 22 and 23 ranged from 0 to 7; the total number of tallies possible for any SIB was 9 (the number of SIBs looked

Table 20. SIBs ranked low (1,2) when a given SIB was ranked highest (6)

GIVEN SIB RANKED HIGHEST	NUMBER OF SIB'S RANKED LOW								
	acceptance	attending	conviviality	cooperation	engagement	monitoring	pacing	promoting self sufficiency	optimism
acceptance		0	1	2	1	2	1	2	0
attending	2		3	3	1	2	1	3	3
conviviality	0	1		3	2	4	1	2	0
cooperation	0	3	2		1	4	3	0	2
engagement	0	2	2	0		3	3	1	2
monitoring	2	0	1	3	2		1	7	2
pacing	1	1	1	2	2	1		4	2
promoting self-sufficiency	0	4	2	0	2	5	1		3
optimism	0	2	1	3	1	2	1	3	

Table 21. SIBs ranked low (1,2) when a given SIB was ranked lowest (1)

GIVEN SIB RANKED LOWEST	NUMBER OF SIB'S RANKED LOW								
	acceptance	attending	conviviality	cooperation	engagement	monitoring	pacing	promoting self sufficiency	optimism
acceptance		3	4	5	3	3	4	3	5
attending	5		6	2	3	6	5	3	4
conviviality	6	6		3	3	7	6	2	7
cooperation	6	2	3		6	2	3	4	2
engagement	6	2	7	3		3	2	4	6
monitoring	5	5	7	1	4		4	3	5
pacing	5	2	6	1	4	7		4	7
promoting self-sufficiency	5	2	4	4	5	3	4		5
optimism	5	5	7	2	2	7	6	3	

Table 22. SIBs ranked high (5,6) when a given SIB is ranked lowest (1)

GIVEN SIB RANKED LOWEST	NUMBER OF SIB'S RANKED HIGH								
	acceptance	attending	conviviality	cooperation	engagement	monitoring	pacing	promoting self sufficiency	optimism
acceptance		0	0	1	4	2	3	3	1
attending	2		2	3	3	0	2	5	1
conviviality	1	1		2	5	1	2	5	0
cooperation	0	2	1		1	3	1	0	3
engagement	1	1	0	0		3	3	0	1
monitoring	3	2	2	4	4		2	6	1
pacing	2	3	1	1	3	1		3	1
promoting self-sufficiency	1	2	2	1	3	4	2		2
optimism	2	2	0	2	6	1	2	5	

Table 23. SIBs ranked high (5,6) when a given SIB is ranked highest (6)

GIVEN SIB RANKED HIGHEST	NUMBER OF SIB'S RANKED HIGH								
	acceptance	attending	conviviality	cooperation	engagement	monitoring	pacing	promoting self sufficiency	optimism
acceptance		6	6	4	4	4	5		5
attending	3		1	3	1	5	4	3	3
conviviality	6	3		6	3	2	4	3	6
cooperation	6	0	3		7	1	2	5	1
engagement	7	2	2	7		4	4	5	1
monitoring	4	4	1	3	4		6	2	3
pacing	6	6	3	1	4	5		4	2
promoting self-sufficiency	6	4	2	6	5	3	3		4
optimism	3	5	4	4	0	3	4	2	

Table 24. Interrelationships of SIBs for all teachers when each SIB is ranked highest (6) and lowest (1)

SIB's ranked high when given SIB was ranked lowest	SIB's ranked low when given SIB was ranked lowest	Given Supportive Instructional Behavior	SIB's ranked high when given SIB was ranked highest	SIB's ranked low when given SIB was ranked highest
	cooperation optimism	ACCEPTANCE	attending conviviality pacing optimism	
promoting self-sufficiency	acceptance conviviality monitoring pacing	ATTENDING	monitoring	
engagement promoting self-sufficiency	acceptance attending monitoring pacing optimism	CONVIVIALITY	acceptance cooperation optimism	
	acceptance engagement	COOPERATION	acceptance engagement promoting self-sufficiency	
	acceptance conviviality optimism	ENGAGEMENT	acceptance cooperation promoting self-sufficiency	
promoting self-sufficiency	acceptance attending conviviality optimism	MONITORING	pacing	promoting self-sufficiency
	acceptance conviviality monitoring optimism	PACING	acceptance attending monitoring	
	acceptance engagement optimism	PROMOTING SELF-SUFFICIENCY	acceptance cooperation engagement	monitoring
engagement promoting self-sufficiency	acceptance attending conviviality monitoring pacing	OPTIMISM	attending	

at in the study). Table 25 was generated by regarding five tallies as a cut-off point. Any tally less than five does not appear on Table 25. Five was chosen because it represented more than half the SIBs.

By looking at the distribution of SIBs across the various SIBS, the relative importance of SIBs can be ascertained. Table 25 gives this information. From Table 25, it is noted that acceptance is related to the highest number of highest (5) and lowest (8) ranked SIBs. Acceptance is followed by optimism, monitoring, and promoting self-sufficiency, conviviality, engagement and pacing and attending, and cooperation.

The most interesting relationship is for promoting self-sufficiency. It was ranked high, when attending, conviviality, monitoring, and optimism were ranked lowest. It ranked low when monitoring ranked highest, and ranked high when monitoring ranked highest, and ranked high when cooperation and engagement ranked highest. More so than other SIBs it tended to move at cross-purposes to other SIBs.

Analysis 2. The direct and indirect relationships for each SIB was determined for each teacher. The definitions of these relationships follow.

> Direct Relationship: A given SIB is said to be in direct relationship with another SIB if the other SIB is high when the given SIB is high, and low when the given SIB is low.
>
> Indirect Relationship: A given SIB is said to be in an indirect relationship with another SIB if the other SIB is low when the given SIB is high and high when the given SIB is low.

The same analysis was done for the composite analysis of SIBs represented by Table 24. Table 26 gives the direct and indirect relationships of SIBs across all the nine teachers of this research study. It is interesting to note the almost exclusive dominance of direct relationships. Across all teachers, there was only one indirect relationship. This would

Table 25. Associations of SIBs with each other

Given Supportive Instructional Behavior	Highest Ranked SIB's With Which the Given SIB is Ranked High	Highest Ranked SIB's With Which the Given SIB is Ranked Low	Lowest Ranked SIB's With Which the Given SIB is Ranked Low	Lowest Ranked SIB's With Which the Given SIB is Ranked High
ACCEPTING	conviviality cooperation engagment pacing promoting self-sufficiency		attending conviviality cooperation engagement monitoring pacing promoting self-sufficiency optimism	
ATTENDING	acceptance pacing optimism		conviviality monitoring optimism	
CONVIVIALITY	acceptance		attending engagement monitoring optimism	
COOPERATION	conviviality engagement promoting self-sufficiency		acceptance	
ENGAGEMENT	cooperation promoting self-sufficiency		cooperation promoting self-sufficiency	conviviality optimism
MONITORING	attending pacing	promoting self-sufficiency	attending pacing optimism	
PACING	acceptance monitoring		attending conviviality optimism	
PROMOTING SELF-SUFFICIENCY	cooperation engagement			attending conviviality monitoring optimism
OPTIMISM	acceptance conviviality		promoting self-sufficiency acceptance conviviality engagement monitoring	

Table 26. Direct and indirect relationship among SIBs for all teachers

SIBs	SIBs having a direct relationship with the given SIB	SIBs having an indirect relationship with the given SIB
acceptance	optimism	
attending	monitoring	
conviviality	acceptance optimism	
cooperation	acceptance engagement	
engagement	acceptance	
monitoring		promoting self-sufficiency
pacing	acceptance monitoring	
promoting self-sufficiency	acceptance engagement	
optimism	attending	

indicate that the SIBs for the most part, when they move, move as a block rather than at cross-purposes to one another.

CHAPTER SIX

DISCUSSION AND IMPLICATIONS OF THE STUDY

Chapter 6 will relate what has been learned as a result of this study. Following a statement about the analyses that were carried out, three worlds will be addressed--the worlds of the teacher, teacher educator, and researcher interested in research on teaching.

Data Analyses

The possibilities of mood affecting teaching behavior was not an issue that had received much attention from the research world. It was an issue that teachers seemed to be very cognizant of. This study was a first attempt at exploring some potential relationships between mood and teaching behavior.

Table 16 showed clearly that the measured differences of general mood scores within and among the subject teachers was not large. This research would have been helped if the "sum of the scores" for each checklist had been used. The averaging procedure employed in this study had the effect of minimizing the possible mood differences. The data could be interpreted as representing the fact that this study in reality had only dealt with a very narrow range of mood across the teachers studied, and thus the study had not found mood variation. However, the interview protocols showed that teachers reported they did experience variation in mood. Because of this, the general mood scores were taken to represent real mood differences in the teachers. The report of mood difference by the teachers allowed the differences found in the averaging of the mood adjective checklist to be interpreted as valid and reliable information.

The discussion to follow is founded on the belief that mood was a factor in the lives of teachers and that this study has begun to shed some light on what the factors of mood might be. Given the very tentative identification of these factors, some implications for educators might be considered.

For the Teacher and Public School Administrators

The research conducted in this study took a piece of many elements that constitute the "affective climate" of a classroom and examined that piece. This decision was made in large part because a varied group of scattered teachers throughout the State of Vermont had told us the affective climate of their classrooms was important for them to know more about. In order to narrow the topic sufficiently so that exploratory research could be carried out, the research team decided to find out what it could about the possibility of relationships between teacher's mood and several of her teaching behaviors. Were there any effects? Were they the same for all teachers? Was the ephemeral world of "moodism" a tangible phenomenon so our results could offer something of substance to teachers?

Mood is a topic known to teachers. Teachers rooms see many conversations related to the mood of people working in the schools. Researching such a topic would leave us vulnerable to the comment, "Well, so what? What's the big deal? Everyone knows that! When are you researchers going to tell us something we didn't know?" When the study ended, the research team was excited about what it had learned and the research team included three teachers. You, the reader, will have to decide what's in our findings for you. Our guess is that as a teacher, you'll find yourself some place in this study and perhaps even in its conclusions. What follows is an explanation of our findings that seem

particularly relevent to the teaching world. As part of the school world, school administrators might find some of the findings useful and provocative as well.

For the Teacher

Comments will be made regarding the way in which the research was conducted. Then our discussion will proceed in two directions: first, what we may have learned about mood; and second, what we may have found out about the ways teachers deal with their moods.

Research techniques. Four points can be made here:

1. The research question was not imposed by a researcher. It developed from concerns in real life settings expressed by a group of practicing teachers. It had to be narrowed from a study of "affective climate" to "mood" in order to be researchable.

2. No assumptions were made about the connection of mood to teaching behaviors. The team was trying to discover relationships, not prove relationships assumed to be present. This was difficult because many teachers we spoke with assumed a positive relationship between mood and teaching behavior existed.

3. Teachers reviewed the information gathered in their classrooms with the observer so that what the observer saw and what the teacher thought happened were as close as possible. Only one teacher took issue with an observation. Teacher G said her behavior was "rushed and impatient". The observer had termed it "angry".

4. All observations were done in the natural setting. This meant teachers were observed in their classrooms doing what they usually do. The only elements added to the situation were the observer, the filling out of the

mood checklist, and the interview with the observer which occurred after school. Only one teacher (Teacher L) thought the study would have been more realistic if she had been observed through a one-way mirror.

Discussion Concerning Mood. Two points can be made:

1. Mood seemed to be an identifiable phenomenon. None of the nine teachers had any difficulty completing the mood adjective checklist, and their interviews reported mood states at the start of their lessons consistent with the mood adjective checklist information. What was more difficult was their recall of mood during a specific lesson taught over a span of ten to fifteen days. Recalled mood for eight of the nine teachers was not a useful construct.

2. A multitude of factors contributed to mood. A sample of these are listed below as factors "related to school", and those brought about by "factors unrelated to school".

Factors Unrelated to School.

Weather: a sunny day helped people feel better (Teacher H)

a hot day made the children restless (Teacher G)

an approaching storm made children more irritable (Teacher F)

constant rain was depressing for all (Teacher M)

Health: having a cold was a nuisance to teachers (Teachers H,I)

Sleep: staying up late with a sick child (or a coughing husband) made a teacher less able to deal with interruptions (Teacher H,G)

Someone to talk to: being able to express to someone else how she felt helped one teacher to feel better (Teacher H)

Weekends: getting away from school made Mondays better (Teacher H)

an approaching weekend made Friday better (Teacher I)

Approaching Vacations: children were more restless (Teacher G)

Visiting relatives: made teacher more tired (Teacher I)

Pursuing other interests: playing golf made one teacher feel fresh and revived (Teacher M).

Factors Related to School.

Days off: refusal by administration to grant a professional day made one teacher "angry and peeved" (Teacher I)

Relaxed time during the day: having a free uninterrupted lunch period was relaxing and calming (Teacher G)

Interruptions: special periods (assemblies, music, P.E.) and children moving in and out of the room to go to specialists (reading, mathematics) affected teachers'daily scheduling causing pressure in some teachers to rush and get lessons "over with" (Teachers G, M)

Duties: having to deal with noisy, bothersome children in the lunchroom made one teacher more "uptight" (Teacher I)

Uncooperative, rebellious children: having to deal with the behavior problems of children who weren't in her class made one teacher tense (Teacher G)

School rewards: being granted a sabbatical leave helped one teacher feel "happy and relieved" (Teacher O)

No time off during the day: bothered one teacher by helping add to the tension she had from her room--she couldn't get away from it (Teacher F)

Sudden absence of aide: having to adjust the daily schedule because the aide, a friend, was absent and involved in a serious family situation unnerved one teacher (Teacher M)

Behavior of children: when they are happy, I feel good and when they're quarrelsome, I get upset and frustrated (Teacher L)

In summary there were numerous factors that affect the moods of teachers. Some are impossible to do anything about, snoring husbands and sick children for instance. Others could be influenced by school personnel.

3. Teacher's mood scores tended to drop as the day progressed from morning to afternoon. One explanation was that for every teacher, the most difficult time during the day was later in the morning or first thing in the afternoon. For six of the nine teachers involved in the study, every difficult time period had a general mood rating equal to or less than their reading (morning) mood score. For some teachers, this was a result of fatigue (Teacher I), for others it was the anticipation of teaching a subject matter they felt unsure about (Teacher J). Increased fatique, frustration, preoccupation with the morning's events, and for some, anger, all seemed to contribute to the drop in mood.

4. Mood seemed to be related to some teaching behaviors, specifically several of those behaviors identified in this study as supportive instructional behaviors. For example, (a) for those lessons where conviviality and engagement were ranked lowest, seven teachers' mood scores were less than their average mood scores for the six lessons; (b) when attending, conviviality, cooperation and engagement were ranked highest, six teachers had general mood scores that were greater than their average mood for their six lessons; (c) six teaching behaviors (attending, conviviality, engagement, pacing, promoting self-sufficiency, optimism)were directly linked to the moods of six teachers in the study. For lessons where these behaviors were ranked highest, these teachers' moods were better than average. And, for lessons where these behaviors were ranked lowest, these teachers moods were worse than their average general mood.

5. Teachers who experienced mood shifts, a dramatic change of mood during the course of a lesson (as opposed to a drop in general mood score from lesson to lesson), did so on days when their mood score was less than

their average general mood. For three teachers, their mood shifts occurred on days when their mood was at its lowest level. What can be said here is that mood shifts seem to occur and they occur when teachers are not in as positive a mood as they could be. No mood shifts occurred when teachers were feeling better than their average general mood score.

It can be suggested, then, that mood was identifiable, that it seemed to be related to events in people's lives that occur in school and out of school, that mood tended to drop for some teachers as they approach difficult times for them during the day, that mood seemed to be related to several supportive instructional behaviors, and that mood shifts seemed to be more frequent when teachers' general mood was low.

Having made these statements, what can be said about the way teachers handled their moods? Were mood and teaching behavior inextricably linked in a predetermined fashion? Could teachers exercise some control over their moods by what they did in their classrooms? Predictably, given the very personal world of teaching, the answer to both questions was "Yes!"

Teachers Dealing with Mood. What our observations and conversations with teachers suggested was that there were two dispositions toward mood in the nine teachers we watched and spoke with. There were those whose teaching behavior seemed to be strongly affected by their mood, and those who knew enough about their moods to control their teaching behaviors, despite their moods. The latter group seemed to go even so far as to teach in ways that helped them be in a better mood. The following examples, condensed from case studies, illustrate this point for the latter group of teachers.

Teacher H. At the beginning of her reading lesson on May 22, Teacher H placed the daily schedule for her children on the board. When they groaned,

she realized, "I felt that way myself." Comprehending what both their feelings could mean for her day, she made the following decision. She announced to the children that together they would take an extra special recess that morning if the children finished their work. Her announcement was greeted with cheers and claps. Teacher H's reaction turned a negative situation into a positive situation for herself and the children. Her action with the children helped her (and them) to be in a better mood. Her action meshed with her statements about mood:

> Sometimes you really feel as though they've got it coming. But, I find that doesn't accomplish anything. If I start yelling or if I lose my patience with somebody, it gets it out of my system, but it really doesn't accomplish very much as far as they're concerned.

Teacher O. During an activity period on May 22, a boy in her room was locked out of the room by another boy. When he finally came into the room, the teacher called them over and spoke to each of them concerning their disturbing behavior. This was no different than her usual monitoring of children's work. After she spoke with the boys, she sent them back to their desks and all continued on with their work. None of the classroom conviviality or her accepting behaviors changed during this interaction. This was true despite the fact that the teacher reported she was "angry, no question about it." Her tendency to keep her classroom operating normally and not to disrupt its operation because of her own anger is explained by this statement of hers:

> ...if I get angry and holler and scream when something happens, I have no right to expect them to react any differently in a situation frustrating to them...Once in a while there is a reason and it's all right, but to get angry over little daily occurrences is a waste of time. It's a waste of my time and theirs.

Teacher N. The classroom lessons of Teacher N were marked by her planning and organization. Because of the effort and time she put into her planning, she was able to carry out the business of teaching and learning with warmth, sensitivity, and an air of conviviality. She was aware of her mood and successfully tried to keep her mood enhancing her classroom experiences. Her statements about her mood and her teaching reflected what was observed in her classroom during the times of observation:

> Overall, my mood does not fluctuate particularly. I don't get overly angry. I don't get overly irritated. I like the class to have a light, happy (way about it). I want it to be fun, but on the other hand, I know we've got a lot to do. We have a lot of basic skills that we have to get through. So if I can call a person by a silly name, and we get a laugh, then I don't single out that person, I'm apt to call a whole row by the last name of Magillicutti or McGrew or something.... Life isn't drudgery, I don't want them to dread coming to school. And I feel that my mood enhances my classroom. So I try to be organized and I try to be rested when I come in so I can be obvious about really enjoying the job and them.
> ...It is extremely important to me that (my mood) doesn't fall apart because I want them to enjoy it.

Teacher I. The children Teacher I spent time with were low academically and socioeconomically for the school, the school being high in both these categories when compared to the rest of the state. From reports of lunchtime and playgroud activities, these children could be a difficult lot. Teacher I's response to this class was to structure their time and activities so that their work was appropriate to their level (pacing) and to involve them in a variety of classroom activities so the children could be meaningfully involved. When disrupting behavior occurred, Teacher I dealt with that behavior in ways that would cause it to cease and in ways that didn't involve her getting upset. She knew what would get her upset, and

worked to keep the momentum going:

> They know they're not supposed to have anything on their desks. ...So that you don't break the momentum of your lesson, you go and either take away whatever it is disturbing you or disturbing the class, and keep on with your lesson and you don't break the momentum. If I'd stopped and scolded him, I would have lost everybody. I would have had to get everybody back on with what we were doing.

And, she knew what happened to her when she scolded children:

> It makes me angrier when I talk, the more I talk, the angrier I get. And it's difficult for me to let it go there and come back and be calm again with the children. It hasn't done anything. I find it difficult after scolding a child to come back to the group and talk in a normal voice. It's easier to say nothing at all, just to do something that stops whatever is annoying you. Many times I'll just point to a child if I want him to move or something.

These teachers seemed to know their moods and seemed to be aware of what they could do in their classrooms to either enhance their moods positively or at least not make a disturbing situation worse. Their classrooms seemed to be positive learning environments, places where instruction flowed smoothly and most of the children seemed happy most of the time.

A second group of teachers behaved in ways that suggested they were more linked to their moods. When they were calm, their calssrooms were relatively calm places. When they were upset, or in a less positive mood, their classrooms reflected this less postive nature. Two such teachers were Teachers L and F.

Teacher L. A disposition to have the children work independently in groups while she worked with individuals or small groups was revealed for Teacher L. She herself was always very positive and desired to project a positive feeling to her class. Her case study speaks to the point that she

occasionally did this regardless of the tension level in the classroom. On the day of her mood shift, children got too rambunctious in their activities and she waited for them to settle themselves down. Unfortunately, the situation escalated until she literally became screaming mad at three children in the classroom. Had she been more in tune with the increasing disruptiveness in her room, she might have avoided the mood shift. The mood shift occurred on her lesson of lowest mood.

Teacher F. This was the only teacher who "didn't think about her moods very much." She taught a group of difficult children whose cultural values were very much at odds with hers. Teacher F was constantly subjected to the pressure of disruptive children brought about, in part, by the unrealistic academic demands she imposed. Her mood was usually low and the positive to negative mood shift that occurred in her class happened on her day of lowest general mood. Her classroom lessons for the most part were chiefly characterized by her continual disciplining of her children and her high levels of attention to their "inappropriate" behaviors.

These teachers were very different than Teachers O,N, I, and H with respect to their responses. What good are our findings for Teachers L and F?

Two possible directions could be explored for these teachers. As a result of the analyses, the supportive instructional behavior rankings were known for the days each teacher was in a positive mood. It would be possible to point out the supportive behaviors that were highly present in each of their classrooms during their time of highest mood. The teachers could see how they handled instruction during these days, and how disturbing children were dealt with. They might be able to learn what classroom instructional behaviors help them remain positively oriented and use those behaviors more as

a part of their instructional repetoire. What this intervention suggests is that the teacher alter her patterns of responses with her children to a pattern that is more reflective of the pattern present in the room during her times of high mood. Changing a system of interaction between teachers and children in a room is not an easy matter. On the other hand, having to endure what Teacher F endures daily is no easy matter either. Because the behaviors used by the teacher were those that she has had success with, the possibility exists that once the situation begins to change, the teacher's mood might become more positive and provide its own reward. This intervention has the advantage of using data generated by the teacher herself to influence her teaching strategies.

The second possible direction that could be explored with the teachers would be to point out that attending, engagement, conviviality, pacing, promoting self-sufficiency, and optimism were supportive instructional behaviors whose presence seemed to be linked to the positiveness of teacher's moods. The teachers could try to increase their rates of using these behaviors, or in the case of conviviality, have these behaviors present in their classroom. This intervention might also aid the teachers' being more aware of their moods generally. What this intervention lacks is the presence of data generated directly from the teacher's classroom Using data from the teacher's room appeals to logic but whether it is a necessity in all cases is a question that merits testing.

What both these strategies speak to is the possibility that teachers can become more aware of their own power to influence what occurs in their classrooms if they become more aware of their moods and the instructional strategies they use when they are in positive and negative moods. Perhaps

knowing this, some teacher can control more of their instructional lives than they thought possible. Our findings and the case studies of teachers successful in doing just this suggest it is possible.

For the Administrator

Thus far, the findings have spoken only to teachers. What about school administrators? Several points have been made which seem relevant to people who administer the public schools.

Looking at the school factors influencing teachers' moods revealed several issues related to administrators. These might be provocative but are nevertheless worthy of consideration. They are raised here to emphasize the point that teachers are not the only people in schools affected by the findings of this study.

1. If administrators value teachers feeling good about their work, they might try to ensure that every teacher has a time period (in excess of a half hour) where they can rest, be calm, and catch their breath.

2. The role of intrusions in classrooms ought be be examined. Whether the interruptions were caused by individual children being sent from the room to work with specialists, or special interest assemblies, they had the effect of disrupting the flow of planning teachers had in classrooms, and often, teachers were disturbed by their influence.

3. Perhaps administrators ought to make part of their job talking with teachers informally to see how their teaching lives are going, "off the record". "Someone to talk to" was useful to several teachers being able to be in a better mood.

4. Monitoring as a supportive instructional behavior seemed not related to teachers' positive mood states. The call nationally for increased

accountability generally has had the effect of increasing work. This monitoring has been, perhaps, at the expense of instructional behaviors that contribute to teachers feeling positive about their work. School administrators might be well advised to encourage and help their teachers enhance their repetoire of supportive instructional behaviors so that monitoring could be done in a style that also showed high levels of acceptance and conviviality. Those behaviors are mentioned specifically because their absence was tied to 78% of the teachers studied being in a mood that was less than their average general mood.

Our purpose here was not to criticize administrators or to suggest simple solutions to complicated problems. The suggestions were offered with the belief that administrators have something to do with school climate and our findings have something to say regarding the enhancement of a positive school climate.

Having addressed the role of teachers in regard to the findings of our study, what do the findings say for the role of teacher educator?

For the Teacher Educator

The following statements apply to those people responsible for staff development work whether it be the preservice education of new teachers or the inservice development of practicing teachers.

The suggestion that teachers profit from involving themselves in some activities with their children that contribute to their (the teachers') positive feelings and mood needs to be made by teacher educators. For the preservice teacher, the identification of supportive instructional behaviors and the practice of those behaviors in practicum settings seems important. Knowing that their instructional behavior need not be controlled by their

mood but instead can, in fact, affect their mood would enhance the ability of new teachers to control more of their lives in classrooms.

The same might be said for practicing teachers. Control of a classroom is important but control of yourself first is more important. People responsible for staff development work might consider that a teacher's mood has a possible relationship with instructional behavior and that certain instructional behaviors are more likely to lead to more positive moods on the part of teachers. Controlling instructional behavior in ways that help you be in a good mood and like what you are doing is self-control. Knowing how to avoid negative behaviors that are basically "a waste of time, mine and theirs", as Teacher O put it, is self-control. Staff development personnel could help teachers to recognize this and the suggestions of this study are one way for them to accomplish this goal.

A significant message for staff development personnel relates to an attitude towards making teachers "more effective", i.e., making teachers better at accomplishing what they say they want to accomplish. Often, past efforts geared towards making teachers more effective were directed toward the implementation of a new curriculum package or a newly developed product of educational research. The findings of this study suggest that a key to improving the feelings of teachers about what they do may be present in every teacher's classroom. We just haven't cared to look. Using the kind of observation and interview technique this study employed has suggested that lessons teachers felt positive about had distinctive patterns of supportive instructional behaviors. Trainers and developers might better turn their attention towards helping teachers identify what works for them and then help them learn how to repeat those techniques with increasing

frequency. If Teacher F, for example, could decrease her monitoring, and increase her pacing and acceptance levels, she might be on the way to changing the affective climate of her classroom. We are not suggesting this intervention into the classroom system is an easy task. We are suggesting that it may have better results than the impositions of techniques and products that have little relevance to the context of a given teacher's classroom.

The next step in such a process would be to train teachers to help each other accomplish the task stated above. Such an innovation would lead to teachers supporting each other in very positive ways. After all, trainers have to leave the scene of battle sooner or later. The teachers remain to fend for themselves. The self support activities initiated by staff development people seem logically possible once teachers learn how to do it. Teachers would then be the acknowledged experts on what happens in their classrooms. And, teachers could use their knowledge to help each other be better at what they do. The training report for this project addresses just such a model.

For the Researcher

This study proposed to investigate an area that apparently held little interest for research on teaching--an investigation of the world of mood and the exploration of its possible relationship to teaching behaviors. The nine case studies suggested that relationships were possible between mood and a class of teaching behaviors stipulated in this study as supportive instructional behaviors.

The study further demonstrated that relationships were apparent among supportive instructional behaviors (Table 18) and that these relationships could be identified both for each teacher studied, and for all teachers studied.

In no instance did the combined data for all nine teachers regarding the possible relationships among supportive instructional behaviors match any one teacher's individual relationships among supportive instructional behavior. This observation raised a fundamental issue with research on teaching. Does research utilizing data from individual classrooms apply to teachers involved in a given research program when that data is combined to form a description of what occurred across the combination of individual cases ? And, to what degree does the combination of data apply to teachers not involved in the study? The present study has no answer to the question. The methodology employed, however, the combination of data from a series of in-depth case studies, certainly focuses the issue clearly. The issue suggests that one reason educational research may lack credibility with practitioners in the field may be precisely because of this issue. Notwithstanding the sophistication of inferential statistical techniques, one failure for research to be seen as relevant to the practitioner may be that it lacks the ability to be translated into the practitioner's known experiential world. The quantification and combination of data from a group of classrooms removes the data as a representation of one classroom only. The degree to which this happens is the degree that this data becomes unrecognizeable to the teacher. Utilizing the information within the case studies of this current document in concert with the combined findings may be a step toward the necessary translation.

Given the suggestions of the present study in identifying possible relationships linking the mood of a teacher and her use of supportive instructional behaviors, several hypotheses might be suggested for future analysis by researchers. These hypotheses flow from the analyses addressed in Chapter Five of this report.

1. The absence of conviviality or accepting statements by a teacher is directly related to mood levels of a teacher that are less than her average general mood.

2. High frequencies of the following supportive instructional behaviors are directly related to mood levels of a teacher that are greater than her average general mood: pacing, attending, engagement, conviviality, promoting self-sufficiency, and optimism.

3. The accumulation of fatigue for a teacher throughout the day is directly related to the lessening of teacher's positive mood from morning to afternoon.

4. Dramatic changes in a teacher's mood (mood shift) are more than likely to occur when the teacher's general mood is less than average for that teacher.

5. Dramatic changes in a teacher's mood (mood shift) are more likely to occur for teachers whose teaching behavior is controlled by their moods.

6. Teachers who are aware of their moods and who exercise control of their moods through their repetoire of teaching behaviors are better able to adjust their teaching behaviors in a manner of their choosing.

This section for researchers will conclude with a series of statements the research team felt were valuable for the research world in terms of our methodology.

1. The team approach to research had far reaching implications. The possibility that the research findings would be important to teachers was enhanced by the presence of teachers on the research team. Their presence kept the research well tuned in terms of its practicality. Each member of the research team took learnings that resulted from our process back to the world they represented. Each was affected and none will be the same.

2. The inclusion of observers on the data analysis team enabled the team to be more senstive to the protocol data than if the team had not had the observers present. Even with the detail contained in the classroom protocols, words at times were not accurate descriptors of what really happened in the classroom. Having the observer present to relate what happened was very important.

3. The confirmation of observations by the teachers through the interview with the observer gave an inside-outside perspective on the observed lessons. This ensured that the data base for the study was as close to what really occurred as was possible to achieve. The combining of two worlds (observers and teachers) into one was valuable because it assured us our data was as valid as we could possibly attain.

4. The use of real teachers in real settings teaching real children was important for us in terms of the appeal our findings would have to other teachers. The only tampering done with the classroom ecology was the addition of the observer and the teacher's completion of the mood adjective checklist.

5. It was important in this research to keep the observations as naturalistic as possible. Put on rose-colored glasses and a rose-colored world is seen. Go into a classroom looking for SIB's and SIB's will be seen. The research carried out in this study focussed only on the interaction of the teacher with her children. Once that behavior was described, checked out with the teacher, and transcribed, then and only then was the framework of SIB's placed on the lessons. The initial classroom descriptions were limited only by the ability of the observer to record what was happening. This meant the data reduction was done from a script that was as close to the reality of the situation as was possible.

6. The combination of qualitiative and quantitative data allowed the enrichment of the quantitative data. Monitoring, for example, became something more than a definition. Its presence in several classrooms could be noted quantitatively. The qualitative data allowed it to take on the meaning of the individual teachers use of it. That was important because rarely did two teachers use a supportive instructional behavior in the same way.

7. The use of qualitative and quantitative data also allowed the team to appreciate what a multifaceted craft teaching is. Because we used both kinds of data, we were sensitive to the fact that despite the need to combine data across teachers, each teacher's use of the supportive instructional behaviors was as unique as their fingerprints.

These points would not be relevant to all types of educational research. However, they gave great strength to the present study in our efforts to portray classrooms as they really are. Perhaps future researchers planning to work in the natural settings of classrooms will find them useful. At the very

east, they should be used to provoke dialogue concerning appropriate methods to carry out research in classrooms.

Some Thoughts On Interactive Research And Development On Teaching

The prime criterion of the initial call for interactive research and development on teaching, the utility and utilization of the research findings has been met. The training report submitted with these documents reported the results of a training program that has been concluded. That program used both the processes and products of our research work. The gap between research and development has been shortened by this Vermont project from eight years to two months. That success speaks for itself.

Our cooperative venture has changed us all. We have grown because of our professional connections with each other. It is our hope that other members of the three constituencies we represent will have the opportunity to stretch themselves as we have had, and that our work will make a difference for some teachers and children beyond the classrooms we have had the good fortune to be a part of for this short period of time.

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APPENDIX A

Questionniare Submitted to Thirty Teachers to Assess the "Conventional Wisdom" Concerning the Questions Generated by the Research Team

_____
Name

Five questions about teaching follow. Our project is trying to determine how these questions are regarded in terms of their usefulness for teachers. We are asking your help by rating the questions in two different ways.

First -- read each question and accompanying explanation thoroughly.

Then, in column one, rate the question that you feel is most useful for teachers by placing a (1) next to the appropriate question. Place a (2) next to the question you feel is next useful, and so on up to (5) which you would place next to the question you hold to be least useful.

Now, in column two, write the word "hot" next to the questions which you find personally interesting and "cold" next to those questions that turn you off. It is possible in column two to have all "hots" or all "colds" or some other combination.

Thanks very much for your time and effort. Should you also wish to make a personal reply, please use the reverse side of this sheet.

Column One.	Column Two.
Question 1. _____	Question 1. _____
Question 2. _____	Question 2. _____
Question 3. _____	Question 3. _____
Question 4. _____	Question 4. _____
Question 5. _____	Question 5. _____

Question 1. What effects does ignoring have on a given student behavior which a teacher wishes to strengthen or change?

Key Concept: Ignoring

It means -- the teacher intentionally does not direct her attention at a student whose behavior she has chosen to disregard.

It means -- the teacher is not able to direct her attention to a student whose behavior she has noticed because of time constraints or the demands of other students.

Examples:

a. Raymond is leaning over his desk talking loudly to Johnny. He seems to be getting directions about how to do some work. Their conversation is rowdy and the teacher glances over in their direction. Knowing that this help is good for Raymond, the teacher does not seem to notice them even though Raymond sometimes glances in her direction to check her out.

b. The teacher glances up from her reading group and notices that Susan has finished her work and is quietly reading to herself. Even though the teacher knows this is a new and desireable behavior for Susan and that it would be good to recognize her behavior, the teacher is not able to give Susan the recognition because of the attention she is directing toward the reading group.

It does not mean -- the behavior of the teacher if the teacher has not noticed what a student is doing.

Examples:

a. While the teacher was speaking on the phone, her back was turned to the class. During this time, unnoticed by the teacher, Paula took Joe's pencil and threw it on the floor after snapping it in half.

b. Sally announced to herself, "There! I'm finished." The teacher, busy at the board, did not hear what Sally said and paid no notice to her.

Potential payoff:

--knowing how ignoring is effective or ineffective
--knowing if ignoring is effective or ineffective
--knowing why ignoring is effective or ineffective
--knowing how ignoring "works" from both the teacher and student point of view

Question 2. What effect does reviewing the teaching protocol of a given lesson have on that teacher's subsequent teaching?

Key Concept: Protocol

It means -- an objective extensive written description of the teacher's interactions with her students during a given lesson.

Examples:

a. A trained observer takes notes during a teacher's class time. (The trained observer could be a colleague.) The notes describe what the observer saw occuring in the classroom. As soon as possible, these notes are transcribed and given to the teacher. The teacher discusses her interpretation of what occurred during the lesson with the observer using the protocol as one observation of what occurred during the lesson. This discussion occurs as soon as possible after the observation is done. No attempt is forced todetermine the "rightness" or "wrongness" of the lesson from the protocol.

Following this session, the teacher notes in some fashion that she changed some aspect of her teaching because of the objective feedback she received. This change is verified through another observation.

It does not mean -- the teacher was presented with a checklist of how many questions she had asked during a lesson.

It does not mean -- the teacher was presented with a written opinion of what she ought to do differently.

Potential Payoff:

--seeing how teachers use objective feedback
--understanding more about how teachers come to change their teaching behavior
--finding out if protocols work in terms of providing non-threatening feedback to teachers

--seeing if other teachers could be effective in giving their peers non-interpretive descriptions of classroom behavior
--understanding the place of non-interpretive, non-judgmental feedback with teachers

Question 3. How do students' perceptions of the affective climate in a classroom compare with the teacher's perception of that climate?

Key Concept: Affective climate

It means -- the descriptions children and teachers give relating how it feels to be in a given classroom.

It means -- what behaviors do children and teachers observe as important contributors to creating the feelings of what it is like to be in a given classroom.

Examples:

a. A teacher reported she spent a lot of time encouraging her students to work on their own. She thought the classroom atmosphere for learning was supportive, friendly, and warm.
Those students who the teacher identified as "self-starters" reported they liked being in the room as the teacher made them feel important. However, a vocal minority of the students felt unnoticed or "hounded" by the teacher and for them, the classroom was not a friendly, supportive place to be.

b. A teacher used words like "business-like," "efficient," and "work habits" to describe her classroom. She believed it was important for kids to learn to stand on their own feet and be independant without any particular reward. Therefore, she did not believe the classroom to be warm or impersonal -- just efficient and smooth operating.
Observations by the children noted that each felt important in the teacher's eyes because the teacher always knelt to their level and looked them straight in the eye. The children further noted a lot of touching by this teacher. They reported they felt very accepted by the teacher, almost without exception, and enjoyed the class as a warmly supportive place to be.

It does not mean -- how a teacher thinks the children feel in comparison with how she wants them to feel.

It does not mean -- how the children react to a given "affective education lesson" over a set period of days.

Examples:

a. During the first week of school, the teacher asked the children to write how being in this class made them feel. Two weeks later the teacher gave the same assignment. Since many children said it was good to be in this class, the teacher concluded that she was a teacher that created positive feelings for each other in her class.

b. A teacher wondered how supportive she was being. She recorded the number of times she mentioned "feelings" during her social studies lessons for an entire week. To do this, she used a tape recorder. She concluded she was not a very supportive teacher because the subject of feelings only came up three times during the entire week.

Potential Payoff:

--information will be developed on what constitutes the assessment of affective climate in a classroom
--both teacher and student viewpoints will be considered in developing an understanding of a classroom's emotional structure
--teachers will learn what cues students read as they respond to the emotions in a classroom
--teachers will be able to see more clearly if what they think they do to encourage positive emotional classroom settings in fact accomplishes their goals.

Question 4. In terms of a teacher's specific objectives for a given lesson, what other outcomes were achieved during the teaching of that lesson in addition to the achievement of the specific objectives?

Key Concept: Other outcomes

It means -- incidental learnings such as attitudes and skills that occur as a result of meeting specific predetermined instructional goals.

It means -- what is the ribbon that also comes along with the package; or given a ceratin cake, what kind of icing can we expect as well.

Examples:

a. The teacher wanted to teach a group of children the letter "K." She involved the children in three separate activities: a worksheet wherein the children traced the letter "K," a movement exercise where groups of four children formed the letter with their bodies, and an activity where the children blindly selected a block letter "K" from a paper bag containing the wooden block letters "A," "K," and "O."

When the children were interviewed and tested after the lessons, several had learned the letter "O," all expressed that the body shaping exercise was "more fun" and should be repeated, and several children complained they didn't understand what was wrong with their copying and didn't want to do it again. These latter children were noted to want to to avoid worksheets of any kind for several days afterward.

b. Children were asked what lessons they remembered best from the past ten days of school and why? Seven kids mentioned the paper airplane unit because they had never been allowed to fly paper airplanes in school. Five kids mentioned sharing time because they liked talking about something important to them (none remembered what more than two classmates had said). Ten children talked extensively about the walk in the woods because they had never seen a teacher fall in a creek before, and two couldn't remember anything specific.

It does not mean -- an outcome that occurred because of something that happened that was not part of the teacher's plan.

Example:

Eight kids remembered the lesson on fire prevention because the fire trucks screamed by the school during the lesson.

Potential Payoff:

--we may better know what builds good learning experiences
--kids can give us good information about what engages them
--we may understand more fully the interaction of our methods (using worksheets alot) and our goals (teaching "K").

Question 5. How do our children perceive us during our truly authentic teaching moments and what is the effect of these moments on our childrens' behavior?

Key Concept: Authentic teaching moments

It means -- those times that we shed our normal pattern of relating to the children and show ourselves as we really are -- sad, joyful, angry, stern -- usually in direct response to a real classroom situation.

It means -- our realization that we are communicating person to person with the children and not Teacher to Student.

Examples:

a. The teacher and her class had just seen a bird break its neck against the window and fall dead. A child muttered, "It's just a bird." The teacher, saddened by the death stopped the language lesson and called all the children together. She spoke meaningfully of life and death and for twenty-one minutes, she had the complete attention of the class. Later, kids were heard to say, "Wow! She was really into it! I think I saw a tear in her eye."

b. The class had been warned several times to keep their noise level down. Finally, several boys began laughing hysterically as they thumbed through a back issue of the National Geographic. The teacher blew her lid and sternly admonished the group for their infantile behavior. She was not a cop and didn't intend to start behaving like one. Their noise was their responsibility and they'd better start taking it now. The class spent the rest of the afternoon in hushed murmurs while they went about their work. Later one of the boys told the teacher he was sorry he had "gotten to her."

It doesn't mean -- a sing-song niceness in our voices by which we mean to make schooling sweet.

It doesn't mean -- we are all friends in here all the time because that's the way to get along.

Example:

Encouraging her class to be productive, the teacher talks about how proud we'll all be when we take our corrected papers home to show our parents.

Several children stuff their papers into a basket on their way out of school. When asked later why, they say their parents never ask about their work and could care less.

Potential Payoff:

--how do our authentic selves communicate differently to our children and how do they see the difference
--are sterness and joy similar in that they are perceived as "real" behaviors
--what are the characteristics of those teacher behaviors that always seem to work and is authenticity related in any way to these behaviors
--can authenticity be developed or trained
--how do kids differentiate between our normal moments and our authentic moments

APPENDIX B

Questionniare Used at Invitational Conference to Gather Teachers' Perceptions Regarding Affective Climate

Introduction

As you may know, we are working together on a research project. One thing new about this project is that teachers, teacher trainers, and researchers are teaming in our effort to define a research question that will have some relevance and useability for classroom teachers. After a process of self-study and soliciting opinions from other teachers, our team chose this question as the focus of our research:

> How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?

What we need to do now is clarify the meaining of "affective climate." One way to accomplish this is to search research literature for guidance. A second way to seek clarification is to ask practicing teachers for help. As practicing teachers, you are overwhelmingly involved in the teaching profession. The view you have of your world is crucial to us. We need your opinions in order to structure a research project that will be relevant and useful to people like yourselves. We are therefore seeking your guidance on three issues.

Issue 1. What is your opinion of our question? What does "affective climate" mean to you and what factors define its existance in a classroom?

Issue 2. From your own experience, what kind of behaviors have been present with classes with which you felt high congruence between children and teacher with respect to how each perceived the affective climate in the class? How about classes where there was low congruence?

Issue 3. In looking at rooms that in some manner were defined as high or low congruence with respect to teacher and student perceptions as to affective climate, what would be some comparisons we could make that would yield useful information to you?

Each of these issues will follow in a separate section of this work paper. Respond as honestly as you care. Your candidness now can help us a great deal.

Issue 1.

This is the question we have chosen to answer in some way.
How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?

1A. In just briefly thinking about the question, how much is your interest piqued by it as a topic for research?

1B. What kind of information from resulting research would have utility for you as a teacher?

1C. What does "affective climate"mean to you?

1D. Is affective climate a characteristic that has meaning over a long period of time with a given class? Does it have meaning that varies from day to day? (Expand freely on your answers.)

1E. Please try to briefly define the "affective climate" of your own classroom.

Issue 2.

We have been wondering about the affective climate characteristic in several ways. By responding to the following statements you can aide our thinking.

2A. A teacher with several years of experience is likely to have some classes that are highly congruent and some classes that have less congruency in terms of how teacher and students perceive the affective climate in the classroom.

Do you agree, disagree, or partially agree with this statement? Please go on to explain your thinking.

What factors might lead to the differences in the classes?

What meaning does "congruence" have for you as you thought about and wrote your responses?

2B. A teacher with several years of experience might have classes that are always highly congruent. Another teacher might have classes that regularly show little congruency with respect to the perceptions of teacher and kids in regards to affective climate.

Do you agree, disagree, or partially agree with this statement? Please go on to explain your thinking. How would you account for this occurence?

2C. It seems to us that one could observe high congruence in remarkably different classroom settings. One setting might be "highly structured" with the teacher providing a good deal of direction in terms of what children are to do and how they are to do it. Another kind of setting might be "less highly structured" with the children and teacher having more of an interactive role in deciding what is to be done in the classroom and how it is to be done.

Do you think these situations might occur? What is your reaction to this.

Can you suggest some behaviors that might typify the affective climate in these classrooms of high congruency that also have:

high teacher structure
teacher behaviors:

student behaviors:

high interactive structure
teacher behaviors:

student behaviors:

Issue 3.

For purposes of this section, let us assume that two groups of classrooms have been identified -- one group is a group that has a high degree of congruence among teacher and pupils with respect to affective climate, the other group has low congruence.

Are there questions or variables that might be studied by comparing the two groups that would provide useful information to you, a working classroom teacher?

Some examples might be:

a. how is reading taught in each group?
b. are there subgroupings of children in each of the classroom groups that might be useful to study in some way?
c. how does the teacher provide information to the children in each of the classroom groups?
d. how productive are the children in each of the classroom groups? what is the quality of their productiveness?

Can you add some examples of your own?

Conclusion.

You have now spent several hours exploring some issues that are important to our research group. We started by giving you our research question.

> How do students' perceptions of the affective climate in a classroom compare with the teacher's perceptions of that climate?

Then, with Issue 1., we asked you to respond in several ways. Given this evenings work, has anything changed in your thinking with regard to the questions asked in the Issue 1. section?

APPENDIX C

Questionniare Used With Research Sample

Teacher Questionnaire

1. Name _____
2. Age _____
3. Highest earned degree _____
4. School _____
5. Town _____
6. School District _____
7. # of years of teaching experience _____
8. Grades taught _____
9. Subjects taught _____
10. # of schools in district _____
11. # of children in district _____
12. # of faculty in district _____
13. # of children in your school _____
14. # of faculty in your school _____
15. # of children in your class _____boys_____girls_____
16. What time do you teach reading daily? _____
17. What subject do you find most difficult to teach?_____
18. What time do you teach the most difficult subject daily? _____
19. Do you think that there is a relationship between your moods, and the way you interact with your students?
_____
20. Why? _____
21. Please attach a copy of your seating arrangement which includes a description of your classroom as well as your students' names (see attachment 3).
22. Please complete the attached schedule (4).
23. Why did you agree to participate in this research project?
_____
_____

THANK YOU FOR YOUR TIME AND INTEREST!

VIP QUESTIONNAIRE #2
for
PARTICIPATING CLASSROOM TEACHERS

Thank you so much for participating with the Vermont Interactive Research and Development on Teaching Project. We have enjoyed observing in your classrooms and talking with you about teachers' moods and supportive instructional behaviors.

Your responses to the following questions would be greatly appreciated.

NAME _____ DATE _____

1) Why did you agree to participate in this research project?

_____

_____

_____

_____

2) Did participation with our project help your teaching in any way? Why or How?

_____

_____

_____

_____

3) What could our project staff have done to be more helpful?

_____

_____

_____

_____

4) Do you think there is a relationship between your moods and the way you interact with your students? Why?

_____

_____

_____

_____

_____

5) Are you interested in learning more about interactive research and development on teaching? YES NO
If so, how would you prefer to receive this information?

a. team presentation(s) YES NO

b. workshop YES NO

c. course YES NO

d. other _____

6) Did you feel that having an observer in your classroom effected your classroom interactions in any way? Please explain.

_____

_____

_____

_____

7) Did you think that the first full day of observation provided the observer with wnough background information to adequately record your classroom interactions? Why?

_____

_____

_____

_____

8) Were the interviews at the end of each of the three observation days helpful? Why?

_____

_____

_____

_____

9) Were the protocols (records of your classroom interactions) helpful? Why?

_____

_____

_____

_____

10) Do you think that the month of May had any effect on your moods and/or supportive instructional behaviors? Why?

_____

_____

_____

_____

PLEASE ADD ANY ADDITIONAL QUESTIONS AND/OR COMMENTS THAT YOU THINK WOULD BE HELPFUL TO OUR RESEARCH TEAM.

_____

_____

_____

_____

_____

_____

NAME: _____

SCHOOL: _____

OBSERVER: _____

VERMONT INTERACTIVE PROJECT

September, 1978

NAME _____ DATE _____

EVALUATION FEEDBACK CONCERNING PROTOCOLS

Please describe specific examples of how you have used your protocols to assist you in the teaching/learning process in your classroom (individual children, small group and/or total class instruction).

Please describe examples of what you found most interesting in your own classroom protocols and why that information was of interest to you.

How do you think protocols could be useful to other teachers?

VERMONT INTERACTIVE PROJECT
FOLLOW-UP DEMOGRAPHIC QUESTIONNAIRE
September, 1978

1. A. What is/was the achievement data on your class?

Reading (Test used) _____
Title Date

Range_____ - _____ Average _____

Other (Test used) _____
Title Date

Range_____ - _____ Average _____

B. How do/did the children in your class compare academically to other children of the same age in:

Your school? Higher_____ Lower_____ Average_____

Your district? Higher_____ Lower_____ Average_____

C. Please explain_____

_____

_____

2. How do/did the children in your class compare socio-economically with other children in:

Your school? Higher_____ Lower_____ Average_____

Your district? Higher_____ Lower_____ Average_____

Please explain_____

_____

_____

3. How does your school district compare to others in the state?

A. Academic Achievement? _____

_____

_____

_____

B. Socio-economically? _____

_____

_____

ADDITIONAL INFORMATION

Number of schools in your district? _____

Number of children in each school? _____

Number of teachers in each school? _____

Type and nature of non-teaching personnel? _____

_____

Percentage of Title 1 kids in:
your classroom? _____
your school? _____
your district? _____

Is there a free breakfast program in:
your class? _____
your school? _____

What percentage of children are eligible for free or reduced lunches in:
your class? _____
your school? _____
your district? _____

Will you provide us with a class list and categorize children high, low, or medium in relation to academic standing in reading in your classroom? _____ ATTTACHED _____

APPENDIX D

Protocol Used for Assessing Training Reliability of Team for Scoring Supportive Instructional Behaviors

and

Scoring Key for Protocol

Student Number:
Date of Observation: May 30, 1978
Researcher Number: XYZ
Protocol Number: R

Protocol Used for Assessing Training Reliability of Team for Scoring Supportive Instructional Behaviors

I'm in [redacted] with [redacted]. This is my last observation. The time is 8:10. The room is pretty much the same as when I first described it. The only difference is that the blackboard in the front of the room is empty except for a little statement about Memorial Day. It says, "Memorial Day is always celebrated on May 30th. On that day we show honor and thanks to the people that died in wars so that we could stay free." I'm in the room at approximately 8:10. From 8:10 to about 8:20, the kids take turns sharing one by one going to the front of the room, leaning against the blackboard and telling something about their weekend. During this time, the teacher has put the shades part way down, so that the sun doesn't come beaming into the room. I also might add that it is an extremely stuffy room and very, very hot. It's really a supply room I guess, and they're using it as a classroom and it's unbearable. I don't know how they can deal with it all day. Also, during sharing, the teacher takes [redacted], who is the child who needs separate reading help, to the work table. She is sitting directly in front of me. She shows [redacted] some pictures and gives her work to do during the regular reading period for the rest of the kids who are all in the same reading group. I can't hear what's being said, the teacher is leaning over, showing her different pictures and things that are in envelopes, little cards or pictures to put on the big picture. The kids are still sharing one by one and the teacher has gone to the book shelf, which is sticking out in Quadrant Two. It's that same book shelf that has green curtains on it. She is putting different names on the job list which is on the side of the bookcase facing towards the center of the room. The time is 8:22. The noise level is plus zero. The teacher says, "Would you sit down and I"ll read the job list." Just as she says that the principal walks into the room to talk to the teacher, something about assembly. After that the teacher says, "Now, the job list." The noise level is zero. She reads the names, then she says, "Flag saluter leader, [redacted]?" [redacted] starts to come up to the front of the room. The teacher says, "Let me close the door," she goes to the door and closes it. The teacher, before they start the Pledge of Allegiance, talks about singing The Star Spangled Banner for assembly. She talks about how parents aren't coming to the assembly, it's just for the kids. It is 8:25. They are doing the flag salute. Then we all sing The Star Spangled Banner.

8:10 8:22 8:25

The teacher talks again about singing The Star Spangled Banner, and says that those that sing loudly should try not to sing too loud, and those that sing softly should try to sing out. She then talks about Memorial Day again and says that today is the real day. She asks [redacted] to be the leader in the assembly because she can speak loudly. [redacted] is fidgeting in his chair and raising his hand. The teacher calls on him. [redacted] talks about The Star Spangled Banner on TV and how he sang along. The teacher is standing in the front of the room in Quadrant two. She's got papers in her hand. The teacher is now standing closer to Quadrant two in the front of the room, closer with her back towards the blackboard and explains that Margaret will read something like what's on the blackboard before the assembly. She talks about how adults and all children probably don' know The Star Spangled Banner, and how instead of the class singing it by themselves, they'll be singing it with everyone. As she says that, some of the students began to sing spontaneous The teacher says, "Sh---. One, two, three, ge your workbooks out." She has a very amiable manner in that she's not speaking loudly, her voice is even and she is smiling. She says, "Be sure you put your name on the worksheet." She repeats that three times in a soft, but wit emphasis in her voice, and her finger in the air. [redacted] goes to the front desk again, at the work table where I am. The teacher turns to [redacted] and says, "When you're done, I have some more games for you to do." She then turns to the rest of the class, still standing in front of the room, and talks about thinking about sounds and phonics and words. She is speaking in a very joking way. She then says, "How about the rules about 'ie,' [redacted]?" [redacted] begins to explain. The teacher continues to ex lain and then clears reading words from the lis and reads the word, 'niece,' and then begins to talk about what a niece is. The teacher asks, "Who is a niece to someone in this room?" Most of the girls raise their hands. She asks, "Who is a nephew?" Most of the boys raise their hands. Then the teacher says, "None of the gi raised their hands when I said nephew. Good."

8:30 The time is 8:30. The noise level is plus zero [redacted] is still reading words. The teacher says, "Good. Okay, now this morning we start something new." [redacted] begins to call out, "I have and the teacher says, "Good, why don't you put that away for now." I don't know what it is. She turns to [redacted], who is in the front desk in Quadrant two, the very last row.

She says, '[redacted], I'm afraid that if you have that there, you will be watching that and not the workbook." She's talking about a skateboard that is directly under his desk. "I know you haven't been watching," she says. She then tells him to put it away quickly in the back stockroom. She says, "Quickly, we'ver already started." The teacher is now standing in the front of the room in the middle. The teacher is now talking about the syllable, XEX. She says, "Tuck away your hair behing your ear and get your antennas out." She puts her hair behind her ears, is moving around the room. She has a lot of enthusiasm. The students all sit up straight, put their hair behind their ears. The teacher says, "If the syllable start with EX, it sounds like X," and explained that giving syllables. Then she says, "When EX is an unstressed syllable, it sounds like IKS, like in except." She explains that one. "When EX is unstressed just before a vowel, it sounds like EGZ or IGZ, like exact and exist." She is speaking with enthusiasm, with emphasis, not loudly, but with excitement in her voice. When she speaks, the noise level is zero. She then says, "Let's say the words. Put one finger on the words so that I can see that you're following." The teacher reads the word, and the student repeats the word. The time is 8:35. The noise level is plus zero. They are still going over the worksheet. [redacted] is reading. The teacher spells out the word, 'extra.' She pauses, repeats, pauses, repeats, until Erin figures the word out. [redacted] tries the next one. The word is "examine." The teacher says, "That's a hard one." [redacted] does the one after that. The word is "explode." The teacher says, "Excellent. good," and looks up and smiles. The teacher then says, "Second column, would you try them please, [redacted]?" [redacted] reads one of the words, "exempt." The teacher says, "Good girl. Those are tough words. These are not second grade words. These are high school words." Now [redacted] reads some words. The teacher says "Good. great. And the last one, [redacted]?" [redacted] says the words. The teacher says, "Good." The teacher is standing in the front of the room, she has got her teacher's book in her arms, and when she gives directions, she says, "My teacher's book says," and reads the directions from the book. She's got the worksheet on the chair lying in front of her so that she can read while she stands. Now the teacher and all the students are reading all together the words on the list. The teacher says, "Who can read them all? Who thinks that they are mind-bogglingly smart this morning?"

[redacted] pipes in and talks about the letters, "ex" together. [redacted] raises her hand. The teacher says, "Okay, [redacted]?" [redacted] tries the words on the list. The teacher says, "Good. [redacted], do
8:40 you want to try?" The time is 8:40. The noise level is zero. [redacted] tries. The teacher says, "[redacted], help her out." [redacted] tries again. The teacher says, "[redacted], help her out." [redacted] tries again. The teacher says, "Help her out, [redacted]." [redacted] can't answer. The teacher says, "[redacted]." [redacted] answers. The teacher says, "Great." The teacher is pausing to let [redacted] try to figure it out. When enough time has gone by that [redacted] can't figure it out, the teacher says, in a very amiable way to ask someone else to try it out. The teacher then says, "Let's all say them. Put your finger on it." She puts her own finger out. All the students say the word on the list. The teacher looks to the back of the room at [redacted], and says, "[redacted], are you broken-hearted that you can't read through it or can you live through it?" [redacted] looks up, smiles and says, "I can live through it." [redacted] then says, "Can I read through it?" The teacher says again, "Would you be broken-hearted if you couldn't read through it? Or can you live through it?" [redacted] says she can't live through it. The teacher says, "Okay," and [redacted] begins to read. While [redacted] is reading, the teacher has walked over to [redacted] at the work table, and helps her with a new game. [redacted] has stopped. She's gotten a little stuck. The teacher looks up, turns around to face the class and says, "Will you please turn to page 103." [redacted] repeats a word, and the teacher turns to [redacted] goes to her desk, touches her and says, "I'm sorry," and helps her with a word. The teacher then goes back to her own desk, the teacher's desk, and then comes back to the front of the room. As she is walking to the front of the room, [redacted] says, "I like your shoes." The teacher says, "You're very observant. Thank you." Different kids say different things to her like, "I like your dress. I like what you look like." And the teacher says, "You make me feel so good. Thank you." She talks about people and about when people are observant and say something nice to people about the way they look or act, how it makes people feel good. Just as she said that, all different students start saying really nice things
8:45 to her. The time is 8:45. The noise level is plus zero. The teacher puts her hand up to stop the talking, and that's when the noise level becomes plus zero. She speaks in a loud voice and begins to talk from the teacher's guide again.

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[redacted] begins to read. The teacher has briefly gone over to [redacted] and given her more work quickly, as [redacted] is reading. The teacher is now at quadrant two, her back is to the work table, but she is close to it. It is on the side wall. The teacher is now talking about "exit," what an exit is. The teacher reads over what [redacted] has read and says, "I'm sorry, [redacted]. When you read it again, would you stop at the EX words and underline them. [redacted]?" [redacted] doesn't answer. The teacher said, "I had a feeling you weren't listening. [redacted] says nothing. [redacted] tries. The teacher helps with the word "excite." The teacher says, "Did you put a line under exciting?" She is telling them all to put a word under exciting because it's an EX word. [redacted] has gotten out of her seat and is lying with her body on the desk. [redacted] is rereading all the words. The teacher has now gone to [redacted] desk and is helping her again. She tries to sit on the table, slips off, and sits on the table again. The teacher begins to talk, and calls out a word that was from the book, but it was the wrong word, the class is on a different word, and the teacher says, "Sorry, are you on, 'exit?' Okay." She reads the EX words. [redacted] is reading, "Exciting, extra exits." [redacted] is now standing up and then she is sitting again. The teacher says, "Now, my teacher's guide says for you to try this one." What they're doing is now reading the EX words and sentences with their meanings. "[redacted]?" The teacher is now up in the front of the room again. I hear someone saying, "[redacted]" The teacher turns quickly to the door. She's

8:50 gone about a minute. The time is 8:50. The noise level is minus one. The teacher comes back into the room and says, "I'm sorry, that makes it difficult. Would you repeat that, [redacted]?" The teacher is now standing in front of the room with her book. The principal, apparently that's who it was the first time, come back into the room to talk to the teacher. The teacher says, "Thank you." The principal says, "Do you want the door open?" The teacher says "Yes." She is frowning. I think that she is frowning because it's so hot and stuffy in here and that doesn't seem to help. Now different kids are taking turns reading words and meanings. Now [redacted] is reading. The teacher says, "Read them all, please. [redacted]" The teacher is playing with her fingers and she has the teacher's book in her arms. [redacted] is reading again. The time is 8:55. The teacher is in front of the room. The noise level is zero while [redacted] reads.

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The teacher then looks up, snaps her fingers once. She is looking at [redacted]. [redacted] looks at her and is completely silent immediately. [redacted] continues. [redacted] begins to pick up the top of her desk. The teacher looks up and say "Next one [redacted]?" [redacted] reads. The teacher looks at her and says, "Good, Nice girl. Excellent. [redacted]" [redacted] reads. [redacted] is now standing again. Right after [redacted] finishes reading, the teacher says, "Good, [redacted], woul you get ready to read? Not there," meaning n to go back to the work table. Since [redacted] ha finished the game on the work table, she had gone back to her seat. The teacher tells her to read it to herself and get ready for the reading period. The teacher then says, "Turn to page 103. Look at the top where the words are. What is the same about them? [redacted]" [redacted] says that they are EX words. He is shaking hi head a little and looking down. The teacher says, "Try," encouraging him to read. Bill reads one word, extra. The teacher says, "So you are good at this," with enthusiasm. [redacted] tries again and can't do it. The teacher asks someone else to help him. Different students help. She says, "Try them again, [redacted]" [redacted] goes over them. He is doing okay. The teach says, "Next one, [redacted] please." [redacted] begin to read the next list. The time is 9:00. The noise level is plus zero. This is the end of the observation of the reading period.

9:00

Scoring Key for Protocol

N
5/30
XYZ
R

Page	Line	Behavior	Justification
1	36-38	promoting self-sufficiency	Ss placed in chg clerical jobs
	45-47	pss	" " " " " "
2	22-24	≠ accepting	unwilling to accept behavior
	30-33	monitoring	checks progress & prescribes more
	37-42	≠ attending	asks question and ignores Rs
	44-47	accepting	accept S behavior without criticism
	51-53	≠ accepting	rejected/ignored Robert's request
3	1-8	monitoring also ≠ accepting	regular check of Bill
	24-25	engagement	students involved in lrg. activity
	31-34	attending also monitoring	active listening & repeating
	35-36	acceptance	constructive reaction to feeling
	52-54	engagement	students involved
4	8-11	cooperation	Ss helping each other
	18-19	engagement	Ss involved together
	23-2	accepting	constructive reaction to feeling
	34-37	attending	T acknowledging Ss activity actively
	39-42	acceptance	T aware of emotional needs, accepts Ss behavior without criticism
5	1-3	monitoring	keeping her going thru lesson
	7-10	monitoring	checking & correcting work
	19-20	monitoring	keeping her going
	36-38	acceptance	knows interruption can be difficult

Scoring Key for Protocol (continued)

Page	Line	Behavior	Justification
	52-55	engagement	all kids working
6	1-3	attending/ monitoring	shows Robert she's watching
	4-8	attending/ monitoring	shows Wilma she's watching
	22-23	optimism	you'll continue to do well: feeling pleasant
	24-26	cooperation	Ss helping

APPENDIX E

Definitions of Supportive Instructional Behaviors

and

Rating and Ranking Procedures for each Supportive Instructional Behavior

1. ACCEPTANCE

Definitions from Tikunoff, Berliner, and Rist (1975).

We mean:

-- constructive reactions (overt, verval, non-verbal) to students' feelings and attitudes
-- teacher is aware of students' emotional needs and adjusts his/her behavior to accomodate them
-- teacher seems willing to accept students' behavior without criticism

Examples:

1. After Susan wrinkles up her face and says, "Good grief!" she looks frustrated. Mr Combe says, "Yeah. That's a tough problem."

2. Sometimes Karen goes back and forth to the teacher three or four times in a few minutes. Mrs. James commented on this and said Karen is a student who always has to get things off her chest before she can settle down to work.

3. The teacher talks to the class about how students and adults sometimes worry about whether they will do well on a task. Students also participated in the discussion.

4. The teacher goes over to Steve and says, "You've got a big frown on today. Is something bothering you?" Steve replies, "No." Teacher asks "Are you sure you don't want to talk about it?" Steve says no and the teacher says okay.

We do not mean:

-- Criticism to the effectthat students "ought to know better."
-- Teacher ignores or refuses to talk about feelings
-- Teacher pushes students to point they feel nervous or uncomfortable

Examples:

1. Billy has been out of his seat most of the morning. He has worked only from time to time and even then only for a few minutes. His teacher shouts, "Billy! Why can't you sit down and get to work?"

2. Linda punches George, and George starts crying. Mr. Smith looks at him and says, "Boys don't cry."

Rating Procedures.

When rating this 'supportive instructional behavior' the verbal reactions of the teacher in response to various emotional needs of the students were able to be identified immediately.

1. Robert makes a mistake. Teacher says "This is hard."

2. Nathan has turned around to help another child ... Teacher says, "You are very helpful, but in this case he doesn't need your help."

In some cases it was not as obvious. There were times when the biggest clue was from the interview with the teacher. For instance the teacher allowed one child to tell a story at an inappropriate time during a lesson because he/she rarely participated verbally in a large class activity. The teacher perceived this time as an opportunity to encourage the child's participation and make him/her feel comfortable to do so. This was information not easily identified solely by the protocol. A clue from the protocol would be a distinct change in classroom routine for one child to talk or even to leave the room.

Again, in the situation where the teacher was discussing with the child how he/she feels, a situation at home or a physical problem, it was obvious that the teacher was taking "time to discuss or explore students' feelings." A more subtle case was one where the teacher is being sensitive to a child's feelings nonverbally.

> Margaret gives the teacher a big hug. The teacher touches her and gives her a smile.

One of the primary clues used to key into 'accepting' behavior was to note any interaction between teacher and student which was nonacademic or a response by a teacher which may have been related to an academic situation but responded to an emotional need not an academic need.

> The teacher says, "Would you be broken hearted if you couldn't read through it? Or can you live through it?" (She is referring to reading a page of words in front of the class.) Margaret says she can't live through it. The teacher says, "O.K."

In this case the teacher was giving the child a chance to express the importance of doing the activity to her. The teacher then respected the child's feelings about it and allowed her to continue to read.

An example of the teacher who was willing to "accept students behavior without criticism" was when a student was not participating in a classroom discussion and the teacher asked "Would you like us to come back to you?" This allowed for the student to feel okay about not joining in this one time and gave her/him a chance later to try again.

Not only were positive accepting behavior noted in instances discussed above, the absence of these behaviors were noted as negative accepting behavior. Many cases of weak nonacceptance were found where the teacher was obviously not accepting a child's behavior.

1. the teacher says, "Shhhhh."
2. "Let's say it quietly."
3. "Don't shout it out."
4. "I'd like all the noise and pollution to stop."

In these cases it was usually a case of classroom management and discipline. These were marked as weak nonacceptance. There were times when a disciplinary remark was made in a way that was particularly sensitive to the child's feelings. These were marked with a weak accepting and a weak nonaccepting.

> Nathan has turned around to help another child. The teacher says, "You are very helpful (positive accepting) but in this case he doesn't need your help." (negative accepting: teacher is not accepting what the child is doing).

Ranking Procedures.

A system was used to order the protocols from high accepting (6) to low accepting (1). First, protocols were tallied according to the number of positive and negative occurrences of the SIB. Then separately, the protocols were placed in piles of high, medium, and low accepting behavior using the "flavor" or the accepting behavior in the protocols. This was an attempt to allow the subjective impact of the teacher's use of accepting to enter the ranking, irrespective of the objective tallies.

The ranking utilized both the objective tally information and the overall feeling to decide how individual lessons ought to be ranked. The high and low rankings were easiest to generate and for these, the combination of objective and subjective ranking systems worked well. The middle rankings (3,4) were more difficult. They were achieved by rereading and observing closely the sum of positive and negative tallies.

2. ATTENDING

Definitions from Tikunoff, Berliner, and Rist (1975).

We mean:

-- teacher actively listens to what a student is saying, reading or reciting.
-- teacher acknowledges students activity by nodding, by saying "Uh-huh", "Yes", smiling or giving an appropriate facial expression.

Examples:

1. While Sandy is telling about her new cat, the teacher is nodding and smiling, looking directly at the girl.

2. Teacher interrupts Sam, who has interrupted Tracy, "Let Tracy finish, please." Then, to Tracy she says, "Go on Tracy." Teacher has walked to Sam and put her hands on his shoulders from behind. She continues to listen intently to what Tracy is saying.

3. Lucy is answering teacher question. Teacher waits while Lucy finishes, then asks, "And how do you feel about that Lucy?" Teacher looks questioningly at her and leans forward, listening.

We do not mean:

-- teacher lack of involvement in learning activities
-- teacher only pretends to pay attention to learning activity.

Examples:

1. Student is reading her social studies report to the class. While this is going on the teacher is looking down at her desk and appears to be correcting papers.

2. Student is describing an incident involving her dog being lost. The teacher is staring at two boys in the back of the room. Teacher tells the boys that they should be doing their reading. Teacher then asks who is it that was telling her story about the dog.

3. Student is reading to the teacher. It is curious that while the pupils are being evaluated, the teacher does not give his full attention to the student but simply goes through the motions in a

very superficial fashion.

Rating Procedures.

The instances of attending were noted with a "+". The following are examples of kinds of "+" attending:

1. Following along in the reading book while student is reading, ready with assistance where possible,

   For example: The teacher is looking at Jeff as he is reading. Jeff stumbles on a word. The teacher says, "No, 'ound.'" Jeff continues and figures out the word saying, "Sound." As Jeff reads along, the teacher is mouthing along the correct words...

2. The teacher has been following as above, however, allows her attention to stray for just a moment and then returns her attention to the child reading.

   For example: The teacher then looks up at Bill and Janice who are at Janice's desk talking. The teacher then returns her attention to Jude...

3. Teacher actively listens as student is sharing.

   For example: Teacher listened and appeared interested, watching Abbey and nodding.

4. Teacher seems to be following as student is reading while actively monitoring other children's work outside the reading group.

   For example: Terry begins to read. At this point the teacher has gotten up and has gone over to Tara's desk. Terry finishes reading. The teacher is still over by Tara's desk. She has the teacher's book and is following along as he reads. She says, "Very good", after Terry has finished reading...

5. When responding to a child cue words were looked for (the teacher looked at; nodded at; smiled at; put her arm around) which would make the child feel he/she has the teacher's full attention.

   For example: ...She stopped reading, and took the note. She read it and said, "Ok, thank you," and called the boy by name and smiled at him.

Instances of negative attending were also noted with "-". The following are examples of negative attending:

1. The teacher cuts student off.

   For example: She asks a question of Amy, turns toward Bill and says, "I'm sorry, you had your hand up, Bill." Bill answers.

2. Teacher does not act on what child says.

   For example: The next boy in line says, "Mrs. Potter, this chair is broken." ...The teacher nods and takes his workbook to correct.

3. As teacher is working with one child she interrupts to discipline or allows another student to interrupt.

   For example: ...She now looks at Laura and says, "Laura, you go to your desk." The teacher then returns her attention back to Buddy and says, "Mane."

4. Student would have no indication the teacher was attending.

   For example: She said this in a distracted, absent-minded way, concentrating on the other book that she was leafing through.

Ranking Procedures.

The actual rating was computed by totalling the (+'s) and (-'s). The highest (+) total I designated a 6 and the lowest, a one. In cases where there was a tie, (+ score) the one with fewer (-'s) was placed ahead of the other.

3. CONVIVIALITY

Definitions from Tikunoff, Berliner and Rist (1975).

We mean:

-- warmth; family-like quality to classroom interaction
-- good feelings between teacher and student, students and students
-- friendship encouraged between teacher and students students and students
-- lots of smiling
-- tension-free atmosphere
-- teacher and students laugh together

Examples:

1. Teacher is moving about room, stops at Lucy's desk. Lucy looks up, shows her work to teacher. Teacher laughs, Lucy giggles delightedly. Teacher touches Lucy on shoulder, then moves on and Lucy goes on with her desk work.

2. Teacher greets children in a friendly way. She has her arms around two girls.

3. Often the teacher and children will discuss things that have happened to them outside the context of school and instruction. For example, over the week-end Tony hit a homerun in a baseball game. He spoke about the game to the class and a discussion then evolved with some children mentioning their participation in little league and others stating whether or not they liked to play baseball.

4. When student is taking his pulse he says, "I lost mine at sixteen." Teacher says, "Do it again." She is pleasant about this and Billy smiles at her.

5. Even when teacher corrects students her tone is soft and encouraging.

We do not mean:

-- laughter at someone else's expense
-- joviality on part of teacher, but not returned by students, or visa versa
-- rigidity of classroom interaction
-- hostile feelings expressed between the teacher and students and between students and students

Examples:

1. Teacher cannot seem to get the children to cooperate with her. She often addresses students in a loud and unfriendly tone of voice.

2. Two groups of students are often seen taunting each other and causing disturbances within the classroom.

3. Most of the teacher's time seems to be spent reprimanding students.

Rating Procedures.

Since conviviality referred to a "family-like atmosphere" in the classroom, the protocols were examined to find instances of pleasant interactions, i.e., smiling, laughing, joking, hugging, any other interchange contributing to a relaxed atmosphere. The amount and duration of these incidents would determine the conviviality rating. However in some protocols, the positive examples of conviviality were weighed against negative instances -- i.e., fistfights, teacher-student nastiness, a teacher having to take a knife away from a child. In these protocols, I made a subjective judgement concerning the conviviality rating, weighing the positive and negative and judging the overall feeling I got from the protocol. A tally of instances of conviviality was then made for each protocol.

Ranking Procedures.

The protocols were ordered from those with the least number of tallies (1) to those with the most number of tallies (6).

4. COOPERATION

Definition from Tikunoff, Berliner, and Rist (1975).

We mean:

-- student expresses willingness to help other student
-- teacher requests that students help each other
-- students attend to what is being taught and appear to cooperate with the teacher
-- student helps other to finish a task, lends an object to another, etc.
-- affection and warmth among students

Examples:

1. Students would do their work without complaining.

2. During a math class Ricky shouts out loud that he needs an eraser. Dino says, "I got one." Vicky also offered him her's.

3. Teacher calls on Kelly, "What does it look like? " Kelly cannot answer. Then the teacher asks Kelly to call on someone else to help.

4. Students write stories to each other. Teacher distributes letters among students. Teacher asks, "Does anybody else want to read?" Sharon says, "I do but I can't read it!" Denise offers to read the letter for her, which she begins to do.

We do not mean:

-- student hits another student; swears to another student, spits at another, pushes another
-- student refuses to help other student
-- students are not allowed to help each other answer questions
-- students are encouraged to compete with each other

Rating Procedures.

In rating each teacher's protocols for the amount of cooperation, examples of positive and negative cooperation were selected as defined by Tikunoff, Berliner and Rist (1975).

In discussions during training it was decided that cooperation was a student variable, the positive examples of student to student cooperative behavior should be rated more strongly than examples of students "attending to what was being taught and

cooperating with the teacher." In locating the different levels of positive cooperation, examples were rated with +3, +2 or +1 depending on the strength of a specific incident. Examples of each level follow:

+3 (A) "The teacher says, 'Jodie is finished with one square, so she is helping others.'"

(B) "Cherry, Rick, and Anna want to straighten the books that are in the bookcase."

(C) "Todd and Jeff go to sit on the couch in quadrant 2. They take out a game called, 'The Head of the Class.'"

+2 (A) "One student says, 'There are four quarters in a dollar.' The teacher turns to him and says, 'Say that again, Scott, so we can hear.' Scott says it again."

(B) "'May I have Rainbows please?' These children, there are four of them... are already at the reading table and then answer, 'We're already here!'"

+1 (A) "The noise level is zero and all the students have stopped what they are doing right where they are and looking at the teacher."

(B) "Larry is holding a plant and there are perhaps two or three other children gathered together there."

Negative examples of cooperation were rated with a similar scale only using -1, -2, or -3. Some examples drawn from the protocols follow:

-1 (A) "Carl has come up and is standing sort of uncertainly behind them, as if he wants to join them, but doesn't quite know how to ask."

(B) "The teacher says, 'We're listening to Claire, please.' and she is pointing to Robert."

-2 (A) "Different students say, 'You got to be teacher,' talking to Margaret. They say it in a jealous way."

(B) "'Steven, you have here people live in know, k-n-o-w.' Several children started laughing; the teacher said, 'Don't laugh,' in a stern voice."

-3 (A) "Timmy begins to hit Barbara. He hits her twice, and Barbara begins to hit back. Barbara and Timmy now stand up and appear to be having a fist fight."

(B) "Jeff goes over to the table in quadrant four and throws

down his book. He is standing up and is not sitting doing any work...She (the teacher) returns to Jeff...'You are not going to rule this classroom.'"

While rating negative examples it was noted that sometimes the effect of the incident on the classroom was major. These places also received a -3 rating.

One of the difficulties discovered was that our primary focus was on the teacher rather than the students. Often the results might have been different if the focus had been on the students, especially since cooperation is a student variable. Clues in rating were gained by looking at noise levels and amount of engagement. Several times, it was assumed that a noise level of zero and high engagement implied a good level of cooperation. After reading all six of the protocols, the incidents were tallied for each protocol and ordered from 1 (lowest) to 6 (highest).

5. ENGAGEMENT

Definitions from Tikunoff, Berliner and Rist (1975).

We mean:

-- students appear to be involved in the learning activities
-- students look productively busy
-- students react positively to the teacher's encouragements, they appear eager to work
-- students express happiness through gestures, verbally, etc., at giving the correct response

Examples:

1. Student goes to the teacher and shows his workbook to her. The teacher says it's correct. The student goes back to his place with a big smile on his face.

2. Students are discussing a story they have read. They smile, laugh and talk a lot while discussing.

3. Teacher asks the class, "What do you have to share with us this morning?" Most of the students take turns and share with the rest.

4. Observer's note: "They are working industriously and don't seem distracted by the construction going on outside the window, even though it's driving me crazy!"

We do not mean:

-- students seem bored, not involved, unhappy
-- students don't appear to enjoy or participate in the learning activity
-- teacher must administer much discipline because of disruptiveness of students

Examples:

1. Teacher has instructed the students what to do. Teacher announces that it's time to begin working. Students should pick up their ditto sheets. Students remain in their seats, nobody seems to move. Students don't seem to want to work, they look unhappy.

2. Students are working on their math contracts. Paul looks around-he's daydreaming. He's not interested in working.

Rating Procedures.

Ratings were based initially on the definition stated by Tikunoff, Berliner, and Rist (1975).

In light of their definitions, each lesson or activity was rated on a scale of (1) negative engagement, (2) low engagement, (3) medium engagement and (4) high engagement. This provided a workable scale to rate the amount of engagement for each protocol.

The criterion used to differentiate the levels of engagement follows:

1. Negative engagement
   a. no engagement by students
   b. the only behavior noted by the ethnographer was non-engagement behavior as stated by Tikunoff et al (1975).

      "Spencer and Margaret are hitting each other."

2. Low engagement
   a. there appeared to be a very low level of engagement
   b. there is a high incidence of the behavior stated as non-engagement by Tikunoff et al (1975).

      Ethnographers note: "Students are arguing over pencils even though the teacher repeatedly asks them to get to work."

3. Medium engagement
   a. the students show an average occurrence of engagement as stated by Tikunoff et al (1975).
   b. there are possible minor disruptions during the lesson.

      "Mary and John are talking while the teacher is giving directions. Other students don't appear disrupted."

   c. the students are engaged in a task that is not necessarily required by choice, i.e., a math test.

4. High engagement
   a. students show a high level of engagement as stated by Tikunoff et al (1975).
   b. students appear interested, excited and deeply involved in the lesson/activity.
   c. a large number of student-teacher interaction and student-student interaction.
   d. no occurrence of non-engagement behavior.

> "Teacher smiling and laughing and says, 'crazy' and shakes her head. The students smiling at jokes as they read along. Teacher says 'fun with words does anyone want to read that?' Brian is jumping up and down and says, 'I do.'"

The general procedures used to rate each protocol follow:
1. Each incidence of engagement was rated as high, medium, low or negative.
2. The overall feeling of the engagement level of the protocol was summarized.

After going through the protocols at least once following these procedures, the protocols were then reviewed with the assistance of another rater. This helped to deal with border-line cases. It was then easier to rank the lessons from high (6) to low (1).

Ranking Procedures.

When ranking the lessons from 6 (highest) to 1 (lowest) the following ranking procedures were used.

1. A) The lesson with the greatest incidences of high engagement
   B) The lesson with the lowest amount on non-engagement
   C) The lesson with the highest overall feeling of engagement

2. A) Subjective opinion was relied on as to which lesson was a more highly engaged lesson.
   B) Specific instances of high engagement versus medium or low engagement were identified.

3. As a final procedure in the case of close rankings, the lesson having the greatest number of specific instances of non-engagement was rated lower.

6. MONITORING

Definition from Tikunoff, Berliner, and Rist (1975).

We mean:

-- teacher contacts students regularly and systematically
-- teacher checks in on each pupil's progress periodically, and adjusts instruction accordingly
-- teacher utilizes constant process of diagnosing students needs when prescribing instruction for them

Examples:

1. As children are working on math worksheets, the teacher goes from student to student to check on their progress. She notices Josh is having difficulty. She tells him to go back to page 185, and work through the examples. When he has done this, he should bring his work to her before he proceeds.

2. Ms. Yates gave her fifth graders a pre-test on a punctuation unit on the use of commas. If students did well, they were given one set of worksheets; if they did poorly they received a different set.

3. Ms. Josephson grouped her second grader class for reading according to their achievement test scores at the end of first grade. As the year proceeded she moved students from one group to another according to their reading progress.

4. Mr. Sanchez has an open classroom, where children set their own work schedules. He keeps an appointment sheet so that students may check in for "consultation" each day. If students do not check in for a day, he requests that they make an appointment for the next day.

We do not mean:

-- teacher attends to students only as they call out his/her name; class is chaotic, disjointed
-- teacher makes little or no contact with students except to pass out or collect papers
-- teacher teaches same lessons to entire class without regard to individual differences

Examples:

1. Students are working on workbooks at their desks. They call out, "Me. Me" and "Ms. Glover, Ms. Glover." The teacher runs from desk to desk trying to answer all the students' questions.

2. The teacher sits at his desk correcting papers. He puts a score on each paper and returns them to the students, without comment. If students ask him about the tests, he simply says, "Well, that's an A," or "That's a C..."

3. Ms. Hall gives the same lessons to the entire class for mathematics. No matter whether students have done well or poorly on past work, they all receive the same new lessons.

Rating Procedures.

Examples of monitoring would be:

1. A teacher goes from student to student to check progress and gives immediate feedback and/or help on his work. The teacher must give some type of feed-back. Just checking papers to see if they are done, or just grading papers is not considered monitoring.

2. Evidence of a teacher using follow-up on papers he/she has corrected; especially having children correct their mistakes.

3. Evidence of teacher assigning academic tasks according to the child's need which may be discovered from tests, written daily work, or oral communication.

4. Evidence that student progress is being checked regularly and continued or corrective instruction prescribed.

5. In presenting academic material, monitoring could be in the form of asking questions to individuals or even the whole class. There must be a response from the teacher; in this case, either confirming a correct answer or helping him learn the correct answer.

All monitoring pertained to academics. House-keeping duties and conversations not related to the academic curriculum were not included as monitoring.

Monitoring was scored by using a point system according to the amount and the quality of monitoring being done. The point system used three levels.

Weak Monitoring (1 point awarded)

> "...and asks the children what should be changed. Several children call out, 'the M and T and the B'. The teacher crosses these letters out with hash marks and makes them capitals."
>
> "...one of the children asks a question about the assignment and Mrs. F. says, 'Yes, it has to be in that order.'"

Medium Monitoring (2 points awarded)

> "She then moves to child X's desk and says, 'Either begin with a th or an sh'" (This shows teacher moving from student to student, checking in on them and offering help.)

Strong Monitoring (3 points awarded)

> "She then instructs them to go ahead. Terry asks, 'What can I put for Q?' The teacher moves to the chalkboard which is in quadrants three and four and writes GUEEN. She then erases the G and makes it a Q. She also adds these words to the board. Quiet, Quack, X-ray, Xylophone, and Xenon."

Points were then summed for each protocol and the rating was written on page 1 of each protocol.

Ranking Procedures.

The protocols were ordered from lowest score to highest score. The lowest score was ranked lowest (1), and the highest score was ranked highest (6). Other rankings falling in between were ranked similarly.

7. PACING

Definitions from Tikunoff, Berliner, and Rist (1975).

We mean:

-- teacher monitors completion of tasks before proceeding
-- teacher is able to perceive student learning rate and adjusts teaching pace appropriately
-- teacher shows a realistic understanding of time needed for student or students work completion

Examples:

1. While students are working on a math problem at their desk, teacher moves around the room checking their progress. When everyone completes the task, she assigns another.

2. During a spelling test, teacher gave the word, used it in a sentence, repeated the word, then waited until all students had stopped writing before proceeding to next word.

3. The noise level in room rises. The teacher says "Okay, we are getting restless. It's time to move on to something else."

We do not mean:

-- teacher proceeds too fast, students show frustration
-- concepts and/or materials seem too difficult
-- teacher assigns more work than students can do in time given.

Examples:

1. Teacher begins to review yesterday's worksheet with group, realizes time structure, stops group and gives answers orally.

2. Teacher is explaining math problems. John says, "I don't get it;" four other students chime in. Teacher keeps on explaining the math problem.

Rating Procedures.

The rating used three definitions of pacing found in the Tikunoff, Berliner, and Rist definitions. All three definitions were considered of e qual value and provided information from

which classroom examples could be specifically identified as pacing in the protocols.

The following procedures were used to identify specific and over-all indicators of pacing. Each individual protocol was examined to identify specific examples of any one or more of the three types of pacing; the examples were underlined, marked with a plus (+) and with the letter a, b, or c to specifically identify exactly which example of pacing had been found. Each negative example of pacing was underlined and marked with a zero (0). Flavors of pacing were underlined and marked with a check (✓).

Ranking Procedures.

To rank order the six lessons for each teacher the number of pluses were added for each individual lesson, the number of zeroes were subtracted from the pluses and the number of checks were added. The highest lessons of pacing were determined first by the largest number of examples of pacing flavor. For example it was possible to receive a higher ranked day but the particular examples of pacing were lower but this only happened when the specific examples of pacing were very low and the over-all flavor was very high. This was somewhat subjective but appeared appropriate after extensive study of the classroom protocols. There were some independent measures of reliability as there were corresponding high days found by other raters of similar supportive instructional behaviors across teachers.

8. PROMOTING SELF-SUFFICIENCY

Definitions from Tikunoff, Berliner, and Rist (1975).

We mean:

-- students take responsibility for their own classwork
-- student assume responsibility for their own belongings
-- students are placed in charge of certain clerical and housekeeping jobs.

Examples:

1. The teacher has a regular schedule of assigning tasks to the students at the beginning of the week.

2. The students work independently and are allowed to check their answers in the teacher's manual.

3. The students are asked to organize their desks and belongings so that they know where things are and do not have to be dependent on other students or the teacher for help in locating things.

We do not mean:

-- the teacher takes time to do things which students could better do themselves.
-- students do not have any responsibilities in regards to housekeeping jobs

Examples:

1. The teacher goes and gets a pencil (or paper, or book, etc.) for the student.

2. Students are constantly requesting the teacher to do things for them and the teacher complies.

3. Students are not given the opportunity to be monitors or to look after the housekeeping chores of the room.

From these definitions, promoting self-sufficiency was taken to be both the existence of routines in the classroom wherein students took responsibility for classwork, belongings and classroom jobs, and the promotion of routines for students to take and assume self-sufficiency by the teacher.

existence of routines.

Jason got up from his desk and walked to the teacher's desk, got a paper out of the wire basket that the teacher has on the right hand side of her desk, and sat down again.

promotion of routines.

The teacher says in a quiet voice, but one that was very firm "You know that it's your responsibility and you assume that responsibility when you leave the room."

At no time were the promotion of sufficiency taken to be more important than the existence of self-sufficiency.

Rating Procedures.

weak positive rating

1. students volunteering answers to a question asked by the teacher.

   The teacher moves to the front of the room and asks, "What kind of person do you think the farmer was?" Several children raise their hands. She calls on George. He answers with much enthusiasm, "Friendly and kind."

2. students working on their own having been given permission by the teacher to do so.

   Carrie closes her reading book and walks to the math table where she chooses a cross-word puzzle to do by herself.

3. students giving answers not solicited by the teacher

   Repo jumps up from his desk and says to the teacher, "The answer to number six is 'frog.'" The teacher smiles at him.

strong positive rating

1. existence of those behaviors noted by Tikunoff, Berliner, and Rist (1975).

strong negative ratings

1. reprimands spoken by the teacher to children with the intent of having them complete certain work

"I'm not telling you the right words. Look at these again." The teacher says this angrily, her face red.

"They're not all wrong but I'm not telling you which ones are. You'll have to sit down and figure it out for yourself." Tommy returns to his seat looking sheepish.

The rating for each protocol was arrived at by scoring strong ratings whether negative or positive with a score of 1. Weak ratings were scored 1/2. The ratings were summed for each protocol. In addition, "negative" or "positive" was assigned to each protocol. The "negative" rating represented lessons where the teacher's use of promoting self-sufficiency seemed punitive. "Positive" was assigned when the teacher seeemd encouraging in the use of the SIB.

Ranking Procedures.

Little difficulty was experienced in ranking the highest and lowest lessons for promoting self-sufficiency. Lessons with the least number of negative uses of promoting self-sufficiency were ranked higher than lessons that evidenced much negative use of the SIB.

9. OPTIMISM

Definitions from Tikunoff, Berliner, and Rist (1975).

We mean:

-- expressing positive, pleasant, optimistic attitudes or feelings on the part of the teacher

Examples:

1. The teacher tells the observer that , although these students are the slowest she's ever had, they will do well because they are "good kids."

2. The teacher says to a girl, comforting her, "Cheer up. We all have occasional rainy days. But the sun always shines the next day."

3. The teacher says, "This is going to be a good day."

We do not mean:

-- when the teacher remains positive and this is inconsistent with the students' feelings or the present class condition
-- pessimism expressed by the teacher

Examples:

1. "Peter, I don't think you will get that math done."

2. "When will this class learn to be quiet?"

3. "I wish it wasn't such a depressing day."

Rating Procedures.

The number of optimistic statements made during a lesson were summed and written on the front page of the protocol. If there were no specifically optimistic statements, the feeling of the lesson was judged. A pleasant, positive feeling was rated highly optimistic.

Ranking Procedures.

Lessons with the highest rating were ranked highest (6). Lessons with fewer ratings were ranked lower.